GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: January 14, 2004, 07:09:10 ; Search time 36.0637 Seconds
(without alignments)
1311.583 Million cell updates/sec

Title: US-09-864-675-4
Perfect score: 1574
Sequence: 1 MRRDPAPGFSMLLFGVSLAC.....KCPVGYTGDRCQQFAMVNFS 298

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 1107863

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_19Jun03:*
1: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
2: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
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23: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
24: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2003.DAT:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,

and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1574	100.0	298	23	AAU11636	Human Neuregulin-2
2	1547	98.3	754	18	AAW27536	Rat cerebellum der
3	1505	95.6	330	23	AAU11635	Human Neuregulin-2
4	1505	95.6	422	23	ABB07894	Human neuregulin 2
5	1505	95.6	426	23	ABB07893	Human neuregulin 2
6	1478	93.9	330	18	AAW27537	Rat cerebellum der
7	1470	93.4	860	19	AAW63700	Receptor type tyro
8	776	49.3	469	24	ABG71639	Human second splic
9	776	49.3	647	19	AAW48383	Homo sapiens don-1
10	776	49.3	647	24	ABG71644	Human third splice
11	770	48.9	469	19	AAW48382	Homo sapiens don-1
12	736	46.8	407	19	AAW48381	Homo sapiens don-1
13	736	46.8	407	24	ABG71638	Human membrane-bou
14	716	45.5	181	19	AAW48380	Mus musculus don-1
15	716	45.5	181	24	ABG71637	Murine secreted sp
16	716	45.5	605	24	ABG71636	Murine membrane-bo
17	711	45.2	605	19	AAW48379	Mus musculus don-1
18	545	34.6	422	22	AAG67901	Human neuregulin g
19	545	34.6	422	22	AAG67939	Human neuregulin g
20	544	34.6	422	16	AAR67258	Human glial cell g
21	544	34.6	422	17	AAW09371	Human neuregulin G
22	544	34.6	422	17	AAW09372	Human GGF2. Homo
23	544	34.6	422	17	AAR96081	Glial growth facto
24	544	34.6	422	17	AAR87466	Glial growth facto
25	544	34.6	422	17	AAR86628	Mature hGGF2. Hom
26	543	34.5	422	15	AAR55654	GGF-II encoded by
27	543	34.5	422	15	AAR46923	GGF-II encoded by
28	542	34.4	418	23	ABJ00011	Human neuregulin-1
29	542	34.4	418	23	ABJ00049	Human neuregulin-1
30	529	33.6	422	17	AAR87467	Glial growth facto
31	506	32.1	782	22	AAB67751	Amino acid sequenc
32	504	32.0	139	19	AAW48388	Undefined don-1 ho
33	504	32.0	139	24	ABG71645	Don-1 associated p
34	495	31.4	855	22	AAB67757	Amino acid sequenc
35	476	30.2	342	22	AAB67754	Amino acid sequenc
36	473	30.1	182	18	AAW27538	Human cerebellum d
37	473	30.1	323	22	AAB67753	Amino acid sequenc
38	471	29.9	317	22	AAB67752	Amino acid sequenc
39	375	23.8	204	22	AAG67902	Human neuregulin-1
40	375	23.8	204	22	AAG67940	Human neuregulin-1
41	375	23.8	204	23	ABJ00012	Human neuregulin-1
42	375	23.8	204	23	ABJ00050	Human neuregulin-1
43	362.5	23.0	257	13	AAR28538	GGF2BPP3.CDS prote
44	362.5	23.0	257	15	AAR46897	GGF2BPP3. Bos tau
45	362.5	23.0	257	15	AAR55690	GGF2BPP3. Bos tau

ALIGNMENTS

RESULT 1
AAU11636
ID AAU11636 standard; Protein; 298 AA.
XX
AC AAU11636;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human Neuregulin-2beta, NRG-2beta.
XX
KW Human; neuregulin-2; NRG-2alpha; NRG-2beta; mitogenesis;
KW cell survival; cell growth; cell differentiation; erbB receptor;
KW cardiomyopathy; ischaemic damage; cardiac trauma; heart failure;
KW atherosclerosis; vascular lesion; vascular hypertension;
KW degenerative congenital vascular disease; myasthenia gravis;
KW neurodegenerative disorder; peripheral neuropathy;
KW sensory nerve fiber neuropathy; motor fiber neuropathy;
KW sensory nerve fiber neuropathy; multiple sclerosis;
KW amyotrophic lateral sclerosis; spinal muscular atrophy; nerve injury;
KW Alzheimer's disease; Parkinson's disease; cerebellar ataxia;
KW spinal cord injury; tumour; neurofibromatosis; transgenic animal.
XX
OS Homo sapiens.
XX
PN WO200189568-A1.
XX
PD 29-NOV-2001.
XX
PF 23-MAY-2001; 2001WO-US16896.
XX
PR 23-MAY-2000; 2000US-206495P.
XX
PA (CENE-) CENES PHARM INC.
XX
PI Marchionni MA;
XX
DR WPI; 2002-097612/13.
DR N-PSDB; AAS18020.
XX
PT Neuregulin-2 polypeptide and polynucleotide useful for treating
PT multiple sclerosis, spinal muscular atrophy, nerve injury, Alzheimer's
PT disease, by increasing mitogenesis, survival, growth or differentiation
PT of a cell -
XX
PS Claim 53; Fig 9; 79pp; English.
XX
CC The invention relates to a substantially pure neuregulin (NRG)-2
CC polypeptide comprising or consisting of a sequence for human
CC NRG-2alpha or NRG-2beta (clone 2b7) and the polynucleotides encoding
CC the. Also included are a vector expressing the protein, a host cell
CC comprising the vector, a transgenic non-human animal transformed with
CC the vector or having a knockout mutation in one or both NRG-2
CC alleles and an anti-NRG-2 antibody. Analysis of mutations in NRG-2 in an
CC individual is useful for diagnosing an increased likelihood of
CC developing a NRG-2-related disease or condition in a test subject.
CC NRG-2 is useful for increasing the mitogenesis, survival, growth or
CC differentiation of a cell (e.g. a neuronal cell), where the cell

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CC   expresses an erbB receptor. NRG-2 is useful for treating diseases
CC   and disorders such as cardiomyopathy (preferably degenerative congenital
CC   disease), ischaemic damage, cardiac trauma or heart failure or which
CC   has a condition affecting smooth muscle which include atherosclerosis,
CC   vascular lesion, vascular hypertension, and degenerative congenital
CC   vascular disease, myasthenia gravis, a neurodegenerative disorder,
CC   peripheral neuropathy, a sensory nerve fiber neuropathy, a motor fiber
CC   and a sensory nerve fiber neuropathy, multiple sclerosis, amyotrophic
CC   lateral sclerosis, spinal muscular atrophy, nerve injury, Alzheimer's
CC   disease, Parkinson's disease, cerebellar ataxia, and spinal cord injury.
CC   The antibody is useful for treatment of a tumour comprising inhibiting
CC   proliferation of a tumour cell preferably a glial tumour cell, for
CC   treating of neurofibromatosis by inhibiting glial cell mitogenesis.
CC   The present sequence represents NRG-2beta.
XX
SQ   Sequence   298 AA;

  Query Match             100.0%;  Score 1574;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2.5e-112;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Db          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60

Qy         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120

Qy        121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180

Qy        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 240

Qy        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCQQFAMVNFS 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCQQFAMVNFS 298


RESULT 2
AAW27536
ID   AAW27536 standard; Protein; 754 AA.
XX
AC   AAW27536;
XX
DT   18-DEC-1997  (first entry)
XX
DE   Rat cerebellum derived growth factor 1.
XX
KW   Rat; cerebellum derived growth factor; CDGF1; screening; binding;
KW   modulation; erbB type receptor; identification; indication; risk;
KW   proliferation; differentiation; induction; neuron; hyperplasia;
KW   stem cell culture; intracerebral graft; alleviation; repair;
KW   behavioural defect; nervous system; central; peripheral; nerve;
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KW   prothesis; damage; entubulation; cell survival; treatment;
KW   injury; trauma; ischaemia; ischemia; stroke; infection; disorder;
KW   inflammation; neurodegeneration; disease; Parkinson's;
KW   Huntingdon's; amylotrophic lateral sclerosis; sensory; retina;
KW   spinocerebellar degeneration; multiple sclerosis; neoplasia;
KW   amalignant glioma; medulloblastoma; neuroectodermal tumour.
XX
OS   Rattus rattus.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..23
FT                   /label= sig_peptide
FT   Peptide         24..754
FT                   /label= mat_peptide
FT   Domain          158..228
FT                   /label= immmunoglobulin_like_domain
FT   Domain          252..297
FT                   /label= epidermal_growth_factor_like_domain
FT   Domain          316..338
FT                   /label= putative_transmembrane_domain
FT   Cleavage-site   314..315
FT                   /label= potential_proteolytic_site
FT   Region          253
FT                   /note= "characteristic cysteine of epidermal growth
FT                          factor like domain"
FT   Region          261
FT                   /note= "characteristic cysteine of epidermal growth
FT                          factor like domain"
FT   Region          267
FT                   /note= "characteristic cysteine of epidermal growth
FT                          factor like domain"
FT   Region          278
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FT                          factor like domain"
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FT                   /note= "characteristic cysteine of epidermal growth
FT                          factor like domain"
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FT                          factor like domain"
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FT   Region          186
FT                   /note= "potential N-glycosylation site"
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FT                   /note= "potential N-glycosylation site"
XX
PN   WO9709425-A1.
XX
PD   13-MAR-1997.
XX
PF   09-SEP-1996;    96WO-US14484.
XX
PR   08-SEP-1995;    95US-0525864.
XX
```

PA (HARD) HARVARD COLLEGE.
PA (STRD) UNIV LELAND STANFORD JUNIOR.
PA (STRD) UNIV LELAND S STANFORD.
XX
PI Chang H;
XX
DR WPI; 1997-192900/17.
DR N-PSDB; AAT87922.
XX
PT Rat and human cerebellum-derived growth factors - used in the
PT treatment of neuronal injury and proliferative disorders
XX
PS Claim 1; Pages 63-66; 94pp; English.
XX
CC The present sequence is rat cerebellum derived growth factor 1
CC (CDGF1), which can be used to screen for modulators of CDGF
CC binding to erbB type receptors. Identification of a modification or
CC mutation in a CDGF gene, or aberrant expression of a CDGF gene or
CC levels of soluble CDGF may be used to indicate the risk of unwanted
CC cell proliferation or differentiation.
CC CDGF may be used to induce neuronal differentiation in stem cell
CC culture, and maintain the integrity of a terminally differentiated
CC neuronal cell culture, e.g. useful for intracerebral grafting to
CC alleviate behavioural defects. CDGF may also be used in nerve
CC protheses to repair central and peripheral nerve damage, especially
CC where a crushed or severed axon is entubulated by a prosthetic.
CC CDGF may also be used to enhance neuronal cell survival in the
CC central or peripheral nervous system, to treat neurological
CC conditions associated with nervous system injury, e.g. traumatic,
CC chemical or vasal injury and deficits such as ischaemia resulting
CC from stroke, infectious/inflammatory and tumour induced injury,
CC chronic neurodegenerative disease including Parkinson's and
CC Huntingdon's, amylotrophic lateral sclerosis, spinocerebellar
CC degeneration, chronic immunological disease of the nervous system
CC including multiple sclerosis, disorders of the sensory neurons and
CC degenerative diseases of the retina. CDGF may also be used to treat
CC neoplastic or hyperplastic transformations, particularly of the
CC central nervous system, e.g. amalignant gliomas, medulloblastomas
CC and neuroectodermal tumours.
XX
SQ Sequence 754 AA;

Query Match 98.3%; Score 1547; DB 18; Length 754;
Best Local Similarity 97.7%; Pred. No. 8.9e-110;
Matches 291; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

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Qy          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60
              ||||||||||||||||||||||||||||||||||||||||||||| ||||||||||||
Db          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLAPAGGSSSNSTREP 60

Qy         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
              |||||||||||||||||||||||||||||| |||||||||||||||||||||||||
Db         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCAPLERNQRYIFFLEPTEQPLVFKTAFA 120

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              |:| ||||:||||||||||||||||||||||:||||||||||||||||||||||||
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Qy        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 240
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Db        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLHVNSVS 240

Qy        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCQQFAMVNFS 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCQQFAMVNFS 298
```

RESULT 3
AAU11635
ID AAU11635 standard; Protein; 330 AA.
XX
AC AAU11635;
XX
DT 12-MAR-2002 (first entry)
XX
DE Human Neuregulin-2alpha, NRG-2alpha.
XX
KW Human; neuregulin-2; NRG-2alpha; NRG-2beta; mitogenesis;
KW cell survival; cell growth; cell differentiation; erbB receptor;
KW cardiomyopathy; ischaemic damage; cardiac trauma; heart failure;
KW atherosclerosis; vascular lesion; vascular hypertension;
KW degenerative congenital vascular disease; myasthenia gravis;
KW neurodegenerative disorder; peripheral neuropathy;
KW sensory nerve fiber neuropathy; motor fiber neuropathy;
KW sensory nerve fiber neuropathy; multiple sclerosis;
KW amyotrophic lateral sclerosis; spinal muscular atrophy; nerve injury;
KW Alzheimer's disease; Parkinson's disease; cerebellar ataxia;
KW spinal cord injury; tumour; neurofibromatosis; transgenic animal.
XX
OS Homo sapiens.
XX
PN WO200189568-A1.
XX
PD 29-NOV-2001.
XX
PF 23-MAY-2001; 2001WO-US16896.
XX
PR 23-MAY-2000; 2000US-206495P.
XX
PA (CENE-) CENES PHARM INC.
XX
PI Marchionni MA;
XX
DR WPI; 2002-097612/13.
DR N-PSDB; AAS18019.
XX
PT Neuregulin-2 polypeptide and polynucleotide useful for treating
PT multiple sclerosis, spinal muscular atrophy, nerve injury, Alzheimer's
PT disease, by increasing mitogenesis, survival, growth or differentiation
PT of a cell -
XX
PS Claim 53; Fig 7; 79pp; English.
XX
CC The invention relates to a substantially pure neuregulin (NRG)-2

CC polypeptide comprising or consisting of a sequence for human
CC NRG-2alpha or NRG-2beta (clone 2b7) and the polynucleotides encoding
CC the. Also included are a vector expressing the protein, a host cell
CC comprising the vector, a transgenic non-human animal transformed with
CC the vector or having a knockout mutation in one or both NRG-2
CC alleles and an anti-NRG-2 antibody. Analysis of mutations in NRG-2 in an
CC individual is useful for diagnosing an increased likelihood of
CC developing a NRG-2-related disease or condition in a test subject.
CC NRG-2 is useful for increasing the mitogenesis, survival, growth or
CC differentiation of a cell (e.g. a neuronal cell), where the cell
CC expresses an erbB receptor. NRG-2 is useful for treating diseases
CC and disorders such as cardiomyopathy (preferably degenerative congenital
CC disease), ischaemic damage, cardiac trauma or heart failure or which
CC has a condition affecting smooth muscle which include atherosclerosis,
CC vascular lesion, vascular hypertension, and degenerative congenital
CC vascular disease, myasthenia gravis, a neurodegenerative disorder,
CC peripheral neuropathy, a sensory nerve fiber neuropathy, a motor fiber
CC and a sensory nerve fiber neuropathy, multiple sclerosis, amyotrophic
CC lateral sclerosis, spinal muscular atrophy, nerve injury, Alzheimer's
CC disease, Parkinson's disease, cerebellar ataxia, and spinal cord injury.
CC The antibody is useful for treatment of a tumour comprising inhibiting
CC proliferation of a tumour cell preferably a glial tumour cell, for
CC treating of neurofibromatosis by inhibiting glial cell mitogenesis.
CC The present sequence represents NRG-2alpha.
XX
SQ Sequence 330 AA;

Query Match 95.6%; Score 1505; DB 23; Length 330;
Best Local Similarity 98.6%; Pred. No. 5.3e-107;
Matches 285; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

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Qy          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60

Qy         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120

Qy        121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180

Qy        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 240

Qy        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||||||||||||||||||||||| |: | ||
Db        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPNGFFGQRC 289
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RESULT 4
ABB07894
ID ABB07894 standard; protein; 422 AA.
XX
AC ABB07894;

XX
DT 03-JUL-2002 (first entry)
XX
DE Human neuregulin 2 isoform 6.
XX
KW Human; MUC1; mucin; glycoprotein; cytostatic; cancer; tumour; ECD;
KW extracellular domain; neuregulin 2; isoform.
XX
OS Homo sapiens.
XX
PN WO200222685-A2.
XX
PD 21-MAR-2002.
XX
PF 11-SEP-2001; 2001WO-US28548.
XX
PR 11-SEP-2000; 2000US-231841P.
XX
PA (KUFE/) KUFE D W.
PA (OHNO/) OHNO T.
XX
PI Kufe DW, Ohno T;
XX
DR WPI; 2002-339864/37.
XX
PT Use of a mucin glycoprotein (MUC1) extracellular domain antagonist for
PT manufacturing a medicant that inhibits the proliferation of MUC-1
PT expressing cancer cells and that can treat cancers and reduce tumor
PT growth -
XX
PS Claim 6; Page 56-58; 74pp; English.
XX
CC The invention relates to the use of a MUC1 (mucin glycoprotein)
CC extracellular domain (ECD) antagonist for the manufacture of a medicant
CC to inhibit the proliferation of MUC-1 expressing cancer cells. MUC1 ECD
CC antagonists (optionally combined with a pharmaceutical carrier) can be
CC administered to inhibit proliferation of MUC1-expressing cancer cells,
CC useful to treat cancers e.g. skin cancer, prostate cancer and leukemia,
CC especially in humans. The method may also be combined with administration
CC of a chemotherapeutic agent (e.g. an alkylating agent, topisomerase etc)
CC or radiation to treat cancer, especially to reduce tumour growth. The
CC polypeptides are also useful in screening to identify MUC1 ECD
CC antagonists. The present sequence represents a human neuregulin 2
CC isoform 6, a fragment of which can bind to MUC1/ECD.
XX
SQ Sequence 422 AA;

Query Match 95.6%; Score 1505; DB 23; Length 422;
Best Local Similarity 98.6%; Pred. No. 7.1e-107;
Matches 285; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

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Qy          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60
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Db         93 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 152

Qy         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
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Db        153 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 212

Qy        121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        213 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 272

Qy        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        273 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 332

Qy        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||||||||||||||||||||| |: | ||
Db        333 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPNGFFGQRC 381
```

RESULT 5
ABB07893
ID ABB07893 standard; protein; 426 AA.
XX
AC ABB07893;
XX
DT 03-JUL-2002 (first entry)
XX
DE Human neuregulin 2 isoform 5.
XX
KW Human; MUC1; mucin; glycoprotein; cytostatic; cancer; tumour; ECD;
KW extracellular domain; neuregulin 2; isoform.
XX
OS Homo sapiens.
XX
PN WO200222685-A2.
XX
PD 21-MAR-2002.
XX
PF 11-SEP-2001; 2001WO-US28548.
XX
PR 11-SEP-2000; 2000US-231841P.
XX
PA (KUFE/) KUFE D W.
PA (OHNO/) OHNO T.
XX
PI Kufe DW, Ohno T;
XX
DR WPI; 2002-339864/37.
XX
PT Use of a mucin glycoprotein (MUC1) extracellular domain antagonist for
PT manufacturing a medicant that inhibits the proliferation of MUC-1
PT expressing cancer cells and that can treat cancers and reduce tumor
PT growth -
XX
PS Claim 6; Page 53-55; 74pp; English.
XX
CC The invention relates to the use of a MUC1 (mucin glycoprotein)
CC extracellular domain (ECD) antagonist for the manufacture of a medicant
CC to inhibit the proliferation of MUC-1 expressing cancer cells. MUC1 ECD
CC antagonists (optionally combined with a pharmaceutical carrier) can be
CC administered to inhibit proliferation of MUC1-expressing cancer cells,

CC useful to treat cancers e.g. skin cancer, prostate cancer and leukemia,
CC especially in humans. The method may also be combined with administration
CC of a chemotherapeutic agent (e.g. an alkylating agent, topisomerase etc)
CC or radiation to treat cancer, especially to reduce tumour growth. The
CC polypeptides are also useful in screening to identify MUC1 ECD
CC antagonists. The present sequence represents a human neuregulin 2
CC isoform 5, a fragment of which can bind to MUC1/ECD.
XX
SQ Sequence 426 AA;

Query Match 95.6%; Score 1505; DB 23; Length 426;
Best Local Similarity 98.6%; Pred. No. 7.2e-107;
Matches 285; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

```
Qy          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         93 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 152

Qy         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        153 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 212

Qy        121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        213 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 272

Qy        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        273 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 332

Qy        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||||||||||||||||||||| |: | ||
Db        333 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPNGFFGQRC 381
```

RESULT 6
AAW27537
ID AAW27537 standard; Protein; 330 AA.
XX
AC AAW27537;
XX
DT 18-DEC-1997 (first entry)
XX
DE Rat cerebellum derived growth factor 2.
XX
KW Rat; cerebellum derived growth factor; CDGF2; screening; binding;
KW modulation; erbB type receptor; identification; indication; risk;
KW proliferation; differentiation; induction; neuron; hyperplasia;
KW stem cell culture; intracerebral graft; alleviation; repair;
KW behavioural defect; nervous system; central; peripheral; nerve;
KW prothesis; damage; entubulation; cell survival; treatment;
KW injury; trauma; ischaemia; ischemia; stroke; infection; disorder;
KW inflammation; neurodegeneration; disease; Parkinson's;
KW Huntingdon's; amylotrophic lateral sclerosis; sensory; retina;
KW spinocerebellar degeneration; multiple sclerosis; neoplasia;
KW amalignant glioma; medulloblastoma; neuroectodermal tumour.
XX

```
OS   Rattus rattus.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..23
FT                   /label= sig_peptide
FT   Peptide         24..330
FT                   /label= mat_peptide
FT   Domain          158..228
FT                   /label= immmunoglobulin_like_domain
FT   Domain          252..297
FT                   /label= epidermal_growth_factor_like_domain
FT   Region          253
FT                   /note= "characteristic cysteine of epidermal growth
FT                          factor like domain"
FT   Region          261
FT                   /note= "characteristic cysteine of epidermal growth
FT                          factor like domain"
FT   Region          267
FT                   /note= "characteristic cysteine of epidermal growth
FT                          factor like domain"
FT   Region          278
FT                   /note= "characteristic cysteine of epidermal growth
FT                          factor like domain"
FT   Region          280
FT                   /note= "characteristic cysteine of epidermal growth
FT                          factor like domain"
FT   Region          289
FT                   /note= "characteristic cysteine of epidermal growth
FT                          factor like domain"
FT   Region          55
FT                   /note= "potential N-glycosylation site"
FT   Region          186
FT                   /note= "potential N-glycosylation site"
FT   Region          254
FT                   /note= "potential N-glycosylation site"
XX
PN   WO9709425-A1.
XX
PD   13-MAR-1997.
XX
PF   09-SEP-1996;   96WO-US14484.
XX
PR   08-SEP-1995;   95US-0525864.
XX
PA   (HARD ) HARVARD COLLEGE.
PA   (STRD ) UNIV LELAND STANFORD JUNIOR.
PA   (STRD ) UNIV LELAND S STANFORD.
XX
PI   Chang H;
XX
DR   WPI; 1997-192900/17.
DR   N-PSDB; AAT87923.
XX
PT   Rat and human cerebellum-derived growth factors - used in the
PT   treatment of neuronal injury and proliferative disorders
XX
PS   Claim 1; Pages 70-71; 94pp; English.
```

```
XX
CC   The present sequence is rat cerebellum derived growth factor 2
CC   (CDGF2), which can be used to screen for modulators of CDGF
CC   binding to erbB type receptors. Identification of a modification or
CC   mutation in a CDGF gene, or aberrant expression of a CDGF gene or
CC   levels of soluble CDGF may be used to indicate the risk of unwanted
CC   cell proliferation or differentiation.
CC   CDGF may be used to induce neuronal differentiation in stem cell
CC   culture, and maintain the integrity of a terminally differentiated
CC   neuronal cell culture, e.g. useful for intracerebral grafting to
CC   alleviate behavioural defects. CDGF may also be used in nerve
CC   protheses to repair central and peripheral nerve damage, especially
CC   where a crushed or severed axon is entubulated by a prosthetic.
CC   CDGF may also be used to enhance neuronal cell survival in the
CC   central or peripheral nervous system, to treat neurological
CC   conditions associated with nervous system injury, e.g. traumatic,
CC   chemical or vasal injury and deficits such as ischaemia resulting
CC   from stroke, infectious/inflammatory and tumour induced injury,
CC   chronic neurodegenerative disease including Parkinson's and
CC   Huntingdon's, amylotrophic lateral sclerosis, spinocerebellar
CC   degeneration, chronic immunological disease of the nervous system
CC   including multiple sclerosis, disorders of the sensory neurons and
CC   degenerative diseases of the retina. CDGF may also be used to treat
CC   neoplastic or hyperplastic transformations, particularly of the
CC   central nervous system, e.g. amalignant gliomas, medulloblastomas
CC   and neuroectodermal tumours.
XX
SQ   Sequence   330 AA;

  Query Match             93.9%;  Score 1478;  DB 18;  Length 330;
  Best Local Similarity   96.2%;  Pred. No. 6.1e-105;
  Matches  278;  Conservative    5;  Mismatches    6;  Indels    0;  Gaps    0;

Qy          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60
              |||||||||||||||||||||||||||||||||||||||||||||||| ||||||||||||
Db          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLAPAGGSSSNSTREP 60

Qy         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
              |||||||||||||||||||||||||||||| |||||||||||||||||||||||||||||
Db         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCAPLERNQRYIFFLEPTEQPLVFKTAFA 120

Qy        121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
              |:| ||||:||||||||||||||||||||||:||||||||||||||||||||||||||||
Db        121 PVDPNGKNIKKEVGKILCTDCATRPKLKKMKSQTGEVGEKQSLKCEAAAGNPQPSYRWFK 180

Qy        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||:|||||
Db        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLHVNSVS 240

Qy        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||||||||||||||||||||| |: | ||
Db        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPNGFFGQRC 289


RESULT 7
AAW63700
ID   AAW63700 standard; Protein; 860 AA.
```

XX
AC AAW63700;
XX
DT 29-SEP-1998 (first entry)
XX
DE Receptor type tyrosine kinase ErbB ligand.
XX
KW Receptor type tyrosine kinase ErbB; ligand; diagnostic agent;
KW nervous disease; cancer.
XX
OS Rattus sp.
XX
PN JP10179166-A.
XX
PD 07-JUL-1998.
XX
PF 25-DEC-1996; 96JP-0356998.
XX
PR 25-DEC-1996; 96JP-0356998.
XX
PA (HIGA/) HIGASHIYAMA S.
XX
DR WPI; 1998-430952/37.
DR N-PSDB; AAV43674.
XX
PT Gene coding the ligand of the tyrosine kinase ErbB receptor - useful
PT for diagnosing and treating nervous diseases and cancer
XX
PS Claim 1; Pages 9-13; 17pp; Japanese.
XX
CC This represents the ligand of receptor type tyrosine kinase ErbB. A
CC prokaryotic or eukaryotic host cell transformed by a recombinant vector
CC containing the encoding DNA can be used for the recombinant production of
CC the protein. The invention provides a method for inhibiting the formation
CC of the ligand of receptor type tyrosine kinase ErbB in an animal using
CC an antibody recognizing the protein. The ligand of the tyrosine kinase
CC ErbB receptor and associated materials can be used for treating or
CC diagnosing nervous diseases and cancers.
XX
SQ Sequence 860 AA;

Query Match 93.4%; Score 1470; DB 19; Length 860;
Best Local Similarity 95.8%; Pred. No. 8e-104;
Matches 277; Conservative 5; Mismatches 7; Indels 0; Gaps 0;

```
Qy          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60
              |||||||| |||||||||||||||||||||||||||||||||| ||||||||||||
Db        109 MRRDPAPGSSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLAPAGGSSSNSTREP 168

Qy         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
              |||||||||||||||||||||||||||||| |||||||||||||||||||||||||
Db        169 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCAPLERNQRYIFFLEPTEQPLVFKTAFA 228

Qy        121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
              |:| ||||:||||||||||||||||||||||:||||||||||||||||||||||||
Db        229 PVDPNGKNIKKEVGKILCTDCATRPKLKKMKSQTGEVGEKQSLKCEAAAGNPQPSYRWFK 288
```

```
Qy        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||:|||||
Db        289 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLHVNSVS 348

Qy        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||||||||||||||||||||| |: | ||
Db        349 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPNGFFGQRC 397
```

RESULT 8
ABG71639
ID ABG71639 standard; Protein; 469 AA.
XX
AC ABG71639;
XX
DT 14-JAN-2003 (first entry)
XX
DE Human second splice variant of Don-1.
XX
KW Human; Don-1; epidermal growth factor; EGF; neuregulin;
KW glycoprotein ligand; cell proliferation; cell proliferative disorder;
KW carcinoma; adenocarcinoma cell; myeloma; cell differentiation;
KW cell survival; epithelial cell; wound healing; tumour formation;
KW brain; vulnerary; cytostatic.
XX
OS Homo sapiens.
XX
FH Key   Location/Qualifiers
FT Misc-difference 14
FT   /note= "Encoded by AA"
XX
PN US2002127594-A1.
XX
PD 12-SEP-2002.
XX
PF 12-MAR-2002; 2002US-0096241.
XX
PR 22-JUN-2000; 2000US-0599789.
XX
PA (GEAR/) GEARING D P.
PA (BUSF/) BUSFIELD S J.
XX
PI Gearing DP, Busfield SJ;
XX
DR WPI; 2003-039584/03.
DR N-PSDB; ABS56036.
XX
PT Novel Don-1 polypeptide useful for stimulating proliferation of cells,
PT for identifying proteins that interact with Don-1, and for regulating
PT tumour formation and progression in brain -
XX
PS Claim 25; Fig 4; 66pp; English.
XX
CC The present invention relates to the isolation of a novel gene
CC called Don-1, and alternate splice variants of Don-1, which are
CC related to epidermal growth factors (EGF) such as neuregulins.
CC Don-1 polypeptides are glycoprotein ligands. Both murine and human

```
CC   Don-1 sequences are cloned. The mouse Don-1 gene maps to chromosome 18.
CC   Don-1 polypeptides are useful for stimulating proliferation of a cell.
CC   Antibodies to Don-1 polypeptides are useful for detecting Don-1
CC   in a sample. The Don-1 polypeptides are useful for treating and
CC   diagnosing cell proliferative disorders and play a role in the
CC   proliferation of carcinomas e.g. adenocarcinoma, myeloma, in cell
CC   differentiation, proliferation and survival. The polypeptides are
CC   also useful for inhibiting proliferation of adenocarcinoma cells,
CC   for stimulating the proliferation of cells such as epithelial cells
CC   to promote wound healing, for identifying proteins that interact
CC   with Don-1, and for regulating tumour formation and progression in
CC   the brain. The polynucleotide sequences encoding Don-1 may be used
CC   in gene therapy. The present sequence represents human second
CC   splice variant of Don-1.
XX
SQ   Sequence   469 AA;

  Query Match             49.3%;  Score 776;  DB 24;  Length 469;
  Best Local Similarity   97.3%;  Pred. No. 4.3e-51;
  Matches  144;  Conservative    1;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 201
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 90

Qy        202 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 261
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         91 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 150

Qy        262 VNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||||| |: | ||
Db        151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178


RESULT 9
AAW48383
ID   AAW48383 standard; Protein; 647 AA.
XX
AC   AAW48383;
XX
DT   17-AUG-1998  (first entry)
XX
DE   Homo sapiens don-1 polypeptide.
XX
KW   Murine; don-1 gene; melanoma; treatment; adenocarcinoma;
KW   epithelial cell; proliferation; stimulation; treatment; tumours;
KW   skin; oesophagus; lung; breast; liver; pancreas; colon; prostate;
KW   gastrointestinal tract; uterus; wound healing; transmembrane.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          54..108
FT                   /note= "Ig domain"
FT   Domain          142..178
FT                   /note= "EGF domain"
FT   Domain          203..225
```

```
FT                   /note= "transmembrane domain"
FT   Domain          226..647
FT                   /note= "cytoplasmic domain"
XX
PN   WO9807736-A1.
XX
PD   26-FEB-1998.
XX
PF   18-AUG-1997;    97WO-US14585.
XX
PR   19-NOV-1996;    96US-0753007.
PR   19-AUG-1996;    96US-0699591.
XX
PA   (MILL-) MILLENNIUM BIOTHERAPEUTICS INC.
XX
PI   Busfield SJ,  Gearing DP;
XX
DR   WPI; 1998-169084/15.
DR   N-PSDB; AAV17816.
XX
PT   Mouse and human don-1 polypeptide(s) - useful for treatment of
PT   melanomas and adenocarcinoma(s), and for wound healing
XX
PS   Claim 25; Fig 7; 121pp; English.
XX
CC   The sequence is that encoded by a human don-1 gene splice variant.
CC   Don-1 polypeptides stimulate proliferation of epithelial cells
CC   and thus are implicated in melanomas and adenocarcinomas in which
CC   epithelial cells proliferate out of control. Compounds that
CC   interfere with don-1 mediated cell proliferation can be used
CC   in the treatment of tumours such as melanomas and adenocarcinomas
CC   of the skin, oesophagus, lung, breast, liver, pancreas,
CC   gastrointestinal tract, colon, prostate or uterus. Alternatively,
CC   don-1 polypeptides can be used to stimulate epithelial cell
CC   proliferation, e.g. for wound healing.
XX
SQ   Sequence   647 AA;

  Query Match             49.3%;  Score 776;  DB 19;  Length 647;
  Best Local Similarity   97.3%;  Pred. No. 6.3e-51;
  Matches  144;  Conservative    1;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 201
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 90

Qy        202 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 261
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         91 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 150

Qy        262 VNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||| |: | ||
Db        151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178


RESULT 10
ABG71644
```

ID ABG71644 standard; Protein; 647 AA.
XX
AC ABG71644;
XX
DT 14-JAN-2003 (first entry)
XX
DE Human third splice variant of Don-1.
XX
KW Human; Don-1; epidermal growth factor; EGF; neuregulin;
KW glycoprotein ligand; cell proliferation; cell proliferative disorder;
KW carcinoma; adenocarcinoma cell; myeloma; cell differentiation;
KW cell survival; epithelial cell; wound healing; tumour formation;
KW brain; vulnerary; cytostatic.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 14
FT /note= "Encoded by AA"
FT Misc-difference 310
FT /note= "Encoded by AGC"
XX
PN US2002127594-A1.
XX
PD 12-SEP-2002.
XX
PF 12-MAR-2002; 2002US-0096241.
XX
PR 22-JUN-2000; 2000US-0599789.
XX
PA (GEAR/) GEARING D P.
PA (BUSF/) BUSFIELD S J.
XX
PI Gearing DP, Busfield SJ;
XX
DR WPI; 2003-039584/03.
DR N-PSDB; ABS56045.
XX
PT Novel Don-1 polypeptide useful for stimulating proliferation of cells,
PT for identifying proteins that interact with Don-1, and for regulating
PT tumour formation and progression in brain -
XX
PS Claim 25; Fig 7; 66pp; English.
XX
CC The present invention relates to the isolation of a novel gene
CC called Don-1, and alternate splice variants of Don-1, which are
CC related to epidermal growth factors (EGF) such as neuregulins.
CC Don-1 polypeptides are glycoprotein ligands. Both murine and human
CC Don-1 sequences are cloned. The mouse Don-1 gene maps to chromosome 18.
CC Don-1 polypeptides are useful for stimulating proliferation of a cell.
CC Antibodies to Don-1 polypeptides are useful for detecting Don-1
CC in a sample. The Don-1 polypeptides are useful for treating and
CC diagnosing cell proliferative disorders and play a role in the
CC proliferation of carcinomas e.g. adenocarcinoma, myeloma, in cell
CC differentiation, proliferation and survival. The polypeptides are
CC also useful for inhibiting proliferation of adenocarcinoma cells,
CC for stimulating the proliferation of cells such as epithelial cells

```
CC   to promote wound healing, for identifying proteins that interact
CC   with Don-1, and for regulating tumour formation and progression in
CC   the brain. The polynucleotide sequences encoding Don-1 may be used
CC   in gene therapy. The present sequence represents human third
CC   splice variant of Don-1.
XX
SQ   Sequence   647 AA;

  Query Match             49.3%;  Score 776;  DB 24;  Length 647;
  Best Local Similarity   97.3%;  Pred. No. 6.3e-51;
  Matches  144;  Conservative    1;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 201
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 90

Qy        202 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 261
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         91 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 150

Qy        262 VNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||| |: | ||
Db        151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178


RESULT 11
AAW48382
ID   AAW48382 standard; Protein; 469 AA.
XX
AC   AAW48382;
XX
DT   17-AUG-1998  (first entry)
XX
DE   Homo sapiens don-1 polypeptide.
XX
KW   Murine; don-1 gene; melanoma; treatment; adenocarcinoma;
KW   epithelial cell; proliferation; stimulation; treatment; tumours;
KW   skin; oesophagus; lung; breast; liver; pancreas; colon; prostate;
KW   gastrointestinal tract; uterus; wound healing; transmembrane.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          54..108
FT                   /note= "Ig domain"
FT   Domain          142..178
FT                   /note= "EGF domain"
FT   Domain          203..225
FT                   /note= "transmembrane domain"
FT   Domain          226..469
FT                   /note= "cytoplasmic domain"
XX
PN   WO9807736-A1.
XX
PD   26-FEB-1998.
XX
PF   18-AUG-1997;   97WO-US14585.
```

XX
PR 19-NOV-1996; 96US-0753007.
PR 19-AUG-1996; 96US-0699591.
XX
PA (MILL-) MILLENNIUM BIOTHERAPEUTICS INC.
XX
PI Busfield SJ, Gearing DP;
XX
DR WPI; 1998-169084/15.
DR N-PSDB; AAV17815.
XX
PT Mouse and human don-1 polypeptide(s) - useful for treatment of
PT melanomas and adenocarcinoma(s), and for wound healing
XX
PS Claim 25; Fig 4; 121pp; English.
XX
CC The sequence is that encoded by a human don-1 gene splice variant.
CC Don-1 polypeptides stimulate proliferation of epithelial cells
CC and thus are implicated in melanomas and adenocarcinomas in which
CC epithelial cells proliferate out of control. Compounds that
CC interfere with don-1 mediated cell proliferation can be used
CC in the treatment of tumours such as melanomas and adenocarcinomas
CC of the skin, oesophagus, lung, breast, liver, pancreas,
CC gastrointestinal tract, colon, prostate or uterus. Alternatively,
CC don-1 polypeptides can be used to stimulate epithelial cell
CC proliferation, e.g. for wound healing.
XX
SQ Sequence 469 AA;

Query Match 48.9%; Score 770; DB 19; Length 469;
Best Local Similarity 96.6%; Pred. No. 1.2e-50;
Matches 143; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

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Qy        142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 201
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 90

Qy        202 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 261
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         91 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 150

Qy        262 VNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||| |:   ||
Db        151 VNGGVCYYIEGINQLSCKCPNGFFAQRC 178
```

RESULT 12
AAW48381
ID AAW48381 standard; Protein; 407 AA.
XX
AC AAW48381;
XX
DT 17-AUG-1998 (first entry)
XX
DE Homo sapiens don-1 polypeptide.
XX
KW Murine; don-1 gene; melanoma; treatment; adenocarcinoma;

KW epithelial cell; proliferation; stimulation; treatment; tumours;
KW skin; oesophagus; lung; breast; liver; pancreas; colon; prostate;
KW gastrointestinal tract; uterus; wound healing; transmembrane.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Domain 16..70
FT /note= "Ig domain"
FT Domain 104..140
FT /note= "EGF domain"
FT Domain 173..195
FT /note= "transmembrane domain"
FT Domain 196..407
FT /note= "cytoplasmic domain"
FT Region 157..164
FT /note= "juxtamembrane region"
XX
PN WO9807736-A1.
XX
PD 26-FEB-1998.
XX
PF 18-AUG-1997; 97WO-US14585.
XX
PR 19-NOV-1996; 96US-0753007.
PR 19-AUG-1996; 96US-0699591.
XX
PA (MILL-) MILLENNIUM BIOTHERAPEUTICS INC.
XX
PI Busfield SJ, Gearing DP;
XX
DR WPI; 1998-169084/15.
DR N-PSDB; AAV17814.
XX
PT Mouse and human don-1 polypeptide(s) - useful for treatment of
PT melanomas and adenocarcinoma(s), and for wound healing
XX
PS Claim 25; Fig 3; 121pp; English.
XX
CC The sequence is that encoded by a human don-1 gene splice variant.
CC Don-1 polypeptides stimulate proliferation of epithelial cells
CC and thus are implicated in melanomas and adenocarcinomas in which
CC epithelial cells proliferate out of control. Compounds that
CC interfere with don-1 mediated cell proliferation can be used
CC in the treatment of tumours such as melanomas and adenocarcinomas
CC of the skin, oesophagus, lung, breast, liver, pancreas,
CC gastrointestinal tract, colon, prostate or uterus. Alternatively,
CC don-1 polypeptides can be used to stimulate epithelial cell
CC proliferation, e.g. for wound healing.
XX
SQ Sequence 407 AA;

Query Match 46.8%; Score 736; DB 19; Length 407;
Best Local Similarity 97.1%; Pred. No. 4.1e-48;
Matches 136; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Qy 150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 209

```
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db            1 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 60

Qy          210 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db           61 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy          270 IEGINQLSCKCPVGYTGDRC 289
                |||||||||||| |: | ||
Db          121 IEGINQLSCKCPNGFFGQRC 140
```

RESULT 13
ABG71638
ID ABG71638 standard; Protein; 407 AA.
XX
AC ABG71638;
XX
DT 14-JAN-2003 (first entry)
XX
DE Human membrane-bound splice variant of Don-1.
XX
KW Human; Don-1; epidermal growth factor; EGF; neuregulin;
KW glycoprotein ligand; cell proliferation; cell proliferative disorder;
KW carcinoma; adenocarcinoma cell; myeloma; cell differentiation;
KW cell survival; epithelial cell; wound healing; tumour formation;
KW brain; vulnerary; cytostatic.
XX
OS Homo sapiens.
XX
PN US2002127594-A1.
XX
PD 12-SEP-2002.
XX
PF 12-MAR-2002; 2002US-0096241.
XX
PR 22-JUN-2000; 2000US-0599789.
XX
PA (GEAR/) GEARING D P.
PA (BUSF/) BUSFIELD S J.
XX
PI Gearing DP, Busfield SJ;
XX
DR WPI; 2003-039584/03.
DR N-PSDB; ABS56035.
XX
PT Novel Don-1 polypeptide useful for stimulating proliferation of cells,
PT for identifying proteins that interact with Don-1, and for regulating
PT tumour formation and progression in brain -
XX
PS Claim 25; Fig 3; 66pp; English.
XX
CC The present invention relates to the isolation of a novel gene
CC called Don-1, and alternate splice variants of Don-1, which are
CC related to epidermal growth factors (EGF) such as neuregulins.
CC Don-1 polypeptides are glycoprotein ligands. Both murine and human
CC Don-1 sequences are cloned. The mouse Don-1 gene maps to chromosome 18.

CC Don-1 polypeptides are useful for stimulating proliferation of a cell.
CC Antibodies to Don-1 polypeptides are useful for detecting Don-1
CC in a sample. The Don-1 polypeptides are useful for treating and
CC diagnosing cell proliferative disorders and play a role in the
CC proliferation of carcinomas e.g. adenocarcinoma, myeloma, in cell
CC differentiation, proliferation and survival. The polypeptides are
CC also useful for inhibiting proliferation of adenocarcinoma cells,
CC for stimulating the proliferation of cells such as epithelial cells
CC to promote wound healing, for identifying proteins that interact
CC with Don-1, and for regulating tumour formation and progression in
CC the brain. The polynucleotide sequences encoding Don-1 may be used
CC in gene therapy. The present sequence represents human membrane-bound
CC splice variant of Don-1.
XX
SQ Sequence 407 AA;

Query Match 46.8%; Score 736; DB 24; Length 407;
Best Local Similarity 97.1%; Pred. No. 4.1e-48;
Matches 136; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

```
Qy        150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 209
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 60

Qy        210 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy        270 IEGINQLSCKCPVGYTGDRC 289
              |||||||||||| |: | ||
Db        121 IEGINQLSCKCPNGFFGQRC 140
```

RESULT 14
AAW48380
ID AAW48380 standard; Protein; 181 AA.
XX
AC AAW48380;
XX
DT 17-AUG-1998 (first entry)
XX
DE Mus musculus don-1 polypeptide.
XX
KW Murine; don-1 gene; melanoma; treatment; adenocarcinoma;
KW epithelial cell; proliferation; stimulation; treatment; tumours;
KW skin; oesophagus; lung; breast; liver; pancreas; colon; prostate;
KW gastrointestinal tract; uterus; wound healing; transmembrane.
XX
OS Mus musculus.
XX
FH Key Location/Qualifiers
FT Domain 104..140
FT /note= "EGF domain"
XX
PN WO9807736-A1.
XX
PD 26-FEB-1998.

XX
PF 18-AUG-1997; 97WO-US14585.
XX
PR 19-NOV-1996; 96US-0753007.
PR 19-AUG-1996; 96US-0699591.
XX
PA (MILL-) MILLENNIUM BIOTHERAPEUTICS INC.
XX
PI Busfield SJ, Gearing DP;
XX
DR WPI; 1998-169084/15.
DR N-PSDB; AAV17813.
XX
PT Mouse and human don-1 polypeptide(s) - useful for treatment of
PT melanomas and adenocarcinoma(s), and for wound healing
XX
PS Claim 25; Fig 2; 121pp; English.
XX
CC The sequence is that encoded by a murine don-1 gene splice variant.
CC Don-1 polypeptides stimulate proliferation of epithelial cells
CC and thus are implicated in melanomas and adenocarcinomas in which
CC epithelial cells proliferate out of control. Compounds that
CC interfere with don-1 mediated cell proliferation can be used
CC in the treatment of tumours such as melanomas and adenocarcinomas
CC of the skin, oesophagus, lung, breast, liver, pancreas,
CC gastrointestinal tract, colon, prostate or uterus. Alternatively,
CC don-1 polypeptides can be used to stimulate epithelial cell
CC proliferation, e.g. for wound healing.
XX
SQ Sequence 181 AA;

Query Match 45.5%; Score 716; DB 19; Length 181;
Best Local Similarity 94.3%; Pred. No. 5.2e-47;
Matches 132; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

```
Qy        150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 209
              ||||||:|||||||||||||||||||||||||||||||||||||| ||||||||||
Db          1 MKSQTGEVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNVRKNSRLQFNKV 60

Qy        210 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
              :|||||||||||||||||||||:|||||||||||||||||||||||||||||||||||||
Db         61 RVEDAGEYVCEAENILGKDTVRGRLHVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy        270 IEGINQLSCKCPVGYTGDRC 289
              |||||||||||| |: | ||
Db        121 IEGINQLSCKCPNGFFGQRC 140
```

RESULT 15
ABG71637
ID ABG71637 standard; Protein; 181 AA.
XX
AC ABG71637;
XX
DT 14-JAN-2003 (first entry)
XX
DE Murine secreted splice variant of Don-1.

XX
KW Murine; Don-1; epidermal growth factor; EGF; neuregulin; mouse;
KW glycoprotein ligand; cell proliferation; cell proliferative disorder;
KW carcinoma; adenocarcinoma cell; myeloma; cell differentiation;
KW cell survival; epithelial cell; wound healing; tumour formation;
KW brain; vulnerary; cytostatic.
XX
OS Mus sp.
XX
PN US2002127594-A1.
XX
PD 12-SEP-2002.
XX
PF 12-MAR-2002; 2002US-0096241.
XX
PR 22-JUN-2000; 2000US-0599789.
XX
PA (GEAR/) GEARING D P.
PA (BUSF/) BUSFIELD S J.
XX
PI Gearing DP, Busfield SJ;
XX
DR WPI; 2003-039584/03.
DR N-PSDB; ABS56034.
XX
PT Novel Don-1 polypeptide useful for stimulating proliferation of cells,
PT for identifying proteins that interact with Don-1, and for regulating
PT tumour formation and progression in brain -
XX
PS Claim 25; Fig 2; 66pp; English.
XX
CC The present invention relates to the isolation of a novel gene
CC called Don-1, and alternate splice variants of Don-1, which are
CC related to epidermal growth factors (EGF) such as neuregulins.
CC Don-1 polypeptides are glycoprotein ligands. Both murine and human
CC Don-1 sequences are cloned. The mouse Don-1 gene maps to chromosome 18.
CC Don-1 polypeptides are useful for stimulating proliferation of a cell.
CC Antibodies to Don-1 polypeptides are useful for detecting Don-1
CC in a sample. The Don-1 polypeptides are useful for treating and
CC diagnosing cell proliferative disorders and play a role in the
CC proliferation of carcinomas e.g. adenocarcinoma, myeloma, in cell
CC differentiation, proliferation and survival. The polypeptides are
CC also useful for inhibiting proliferation of adenocarcinoma cells,
CC for stimulating the proliferation of cells such as epithelial cells
CC to promote wound healing, for identifying proteins that interact
CC with Don-1, and for regulating tumour formation and progression in
CC the brain. The polynucleotide sequences encoding Don-1 may be used
CC in gene therapy. The present sequence represents murine secreted
CC splice variant of Don-1.
XX
SQ Sequence 181 AA;

Query Match 45.5%; Score 716; DB 24; Length 181;
Best Local Similarity 94.3%; Pred. No. 5.2e-47;
Matches 132; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

Qy 150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 209

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                ||||||:||||||||||||||||||||||||||||||||||||||||| ||||||||||
Db              1 MKSQTGEVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNVRKNSRLQFNKV 60

Qy            210 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
                  :|||||||||||||||||||||||:|||||||||||||||||||||||||||||||||||
Db             61 RVEDAGEYVCEAENILGKDTVRGRLHVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy            270 IEGINQLSCKCPVGYTGDRC 289
                  |||||||||||| |: | ||
Db            121 IEGINQLSCKCPNGFFGQRC 140


Search completed: January 14, 2004, 07:25:05
Job time : 37.0637 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: January 14, 2004, 07:23:41 ; Search time 14.2357 Seconds
(without alignments)
885.707 Million cell updates/sec

Title: US-09-864-675-4
Perfect score: 1574
Sequence: 1 MRRDPAPGFSMLLFGVSLAC.....KCPVGYTGDRCQQFAMVNFS 298

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
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2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
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4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1547	98.3	754	2	US-08-525-864A-2	Sequence 2, Appli
2	1478	93.9	330	2	US-08-525-864A-4	Sequence 4, Appli
3	776	49.3	469	3	US-08-753-007A-8	Sequence 8, Appli
4	776	49.3	469	3	US-09-398-496-8	Sequence 8, Appli
5	776	49.3	647	3	US-08-753-007A-32	Sequence 32, Appl
6	776	49.3	647	3	US-09-398-496-32	Sequence 32, Appl
7	736	46.8	407	3	US-08-753-007A-6	Sequence 6, Appli
8	736	46.8	407	3	US-09-398-496-6	Sequence 6, Appli
9	716	45.5	181	3	US-08-753-007A-4	Sequence 4, Appli
10	716	45.5	181	3	US-09-398-496-4	Sequence 4, Appli
11	716	45.5	605	3	US-08-753-007A-2	Sequence 2, Appli

12	716	45.5	605	3	US-09-398-496-2	Sequence 2, Appli
13	545	34.6	411	3	US-08-470-339-189	Sequence 189, App
14	545	34.6	422	4	US-08-467-602-324	Sequence 324, App
15	545	34.6	456	4	US-08-467-602-366	Sequence 366, App
16	545	34.6	601	3	US-08-470-335-233	Sequence 233, App
17	545	34.6	601	4	US-08-467-602-323	Sequence 323, App
18	545	34.6	610	3	US-08-470-335-236	Sequence 236, App
19	545	34.6	610	4	US-08-467-602-332	Sequence 332, App
20	545	34.6	635	4	US-08-467-602-365	Sequence 365, App
21	545	34.6	644	4	US-08-467-602-374	Sequence 374, App
22	545	34.6	818	3	US-08-470-335-234	Sequence 234, App
23	545	34.6	818	4	US-08-467-602-321	Sequence 321, App
24	545	34.6	827	3	US-08-470-335-237	Sequence 237, App
25	545	34.6	827	4	US-08-467-602-333	Sequence 333, App
26	545	34.6	852	4	US-08-467-602-363	Sequence 363, App
27	545	34.6	861	4	US-08-467-602-375	Sequence 375, App
28	545	34.6	865	3	US-08-470-335-235	Sequence 235, App
29	545	34.6	865	4	US-08-467-602-322	Sequence 322, App
30	545	34.6	874	3	US-08-470-335-238	Sequence 238, App
31	545	34.6	874	4	US-08-467-602-334	Sequence 334, App
32	545	34.6	899	4	US-08-467-602-364	Sequence 364, App
33	545	34.6	908	4	US-08-467-602-376	Sequence 376, App
34	544	34.6	422	1	US-08-036-555B-170	Sequence 170, App
35	544	34.6	422	1	US-08-469-569-170	Sequence 170, App
36	544	34.6	422	1	US-08-428-926-3	Sequence 3, Appli
37	544	34.6	422	1	US-08-249-322A-170	Sequence 170, App
38	544	34.6	422	1	US-08-428-927-3	Sequence 3, Appli
39	544	34.6	422	1	US-08-428-298-3	Sequence 3, Appli
40	544	34.6	422	1	US-08-339-517-3	Sequence 3, Appli
41	544	34.6	422	1	US-08-469-526A-170	Sequence 170, App
42	544	34.6	422	2	US-08-734-591A-170	Sequence 170, App
43	544	34.6	422	2	US-08-469-660-170	Sequence 170, App
44	544	34.6	422	3	US-08-341-018-72	Sequence 72, Appl
45	544	34.6	422	3	US-08-470-335-170	Sequence 170, App

ALIGNMENTS

```
RESULT 1
US-08-525-864A-2
; Sequence 2, Application US/08525864A
; Patent No. 5912326
;  GENERAL INFORMATION:
;    APPLICANT:  Chang, Han
;    TITLE OF INVENTION:  Cerebellum-derived Growth Factors, and Uses
;    TITLE OF INVENTION:  Related thereto
;    NUMBER OF SEQUENCES:  18
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  LAHIVE & COCKFIELD
;      STREET:  28 State Street
;      CITY:  Boston
;      STATE:  Massachusetts
;      COUNTRY:  USA
;      ZIP:  02109
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
```

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;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  AscII (text)
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/525,864A
;       FILING DATE:  8-SEP-1995
;       CLASSIFICATION:  530
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Kara, Catherine J.
;       REGISTRATION NUMBER:  41,106
;       REFERENCE/DOCKET NUMBER:  HUI-017
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (617)227-7400
;       TELEFAX:  (617)742-4214
;   INFORMATION FOR SEQ ID NO:  2:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  754 amino acids
;       TYPE:  amino acid
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  protein
US-08-525-864A-2

  Query Match             98.3%;  Score 1547;  DB 2;  Length 754;
  Best Local Similarity   97.7%;  Pred. No. 2.9e-132;
  Matches  291;  Conservative    4;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60
              ||||||||||||||||||||||||||||||||||||||||||||||| ||||||||||||
Db          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLAPAGGSSSNSTREP 60

Qy         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
              |||||||||||||||||||||||||||||| |||||||||||||||||||||||||
Db         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCAPLERNQRYIFFLEPTEQPLVFKTAFA 120

Qy        121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
              |:| ||||:||||||||||||||||||||||:||||||||||||||||||||||||
Db        121 PVDPNGKNIKKEVGKILCTDCATRPKLKKMKSQTGEVGEKQSLKCEAAAGNPQPSYRWFK 180

Qy        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||:|||||
Db        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLHVNSVS 240

Qy        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCQQFAMVNFS 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCQQFAMVNFS 298


RESULT 2
US-08-525-864A-4
; Sequence 4, Application US/08525864A
; Patent No. 5912326
;  GENERAL INFORMATION:
;    APPLICANT:  Chang, Han
;    TITLE OF INVENTION:  Cerebellum-derived Growth Factors, and Uses
;    TITLE OF INVENTION:  Related thereto
;    NUMBER OF SEQUENCES:  18
;    CORRESPONDENCE ADDRESS:
```

```
;       ADDRESSEE:  LAHIVE & COCKFIELD
;       STREET:  28 State Street
;       CITY:  Boston
;       STATE:  Massachusetts
;       COUNTRY:  USA
;       ZIP:  02109
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  AscII (text)
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/525,864A
;       FILING DATE:  8-SEP-1995
;       CLASSIFICATION:  530
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Kara, Catherine J.
;       REGISTRATION NUMBER:  41,106
;       REFERENCE/DOCKET NUMBER:  HUI-017
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (617)227-7400
;       TELEFAX:  (617)742-4214
;   INFORMATION FOR SEQ ID NO:  4:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  330 amino acids
;       TYPE:  amino acid
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  protein
US-08-525-864A-4

  Query Match             93.9%;  Score 1478;  DB 2;  Length 330;
  Best Local Similarity   96.2%;  Pred. No. 1.8e-126;
  Matches  278;  Conservative    5;  Mismatches    6;  Indels    0;  Gaps    0;

Qy          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60
              |||||||||||||||||||||||||||||||||||||||||||||| ||||||||||||
Db          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLAPAGGSSSNSTREP 60

Qy         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
              |||||||||||||||||||||||||||||| ||||||||||||||||||||||||
Db         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCAPLERNQRYIFFLEPTEQPLVFKTAFA 120

Qy        121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
              |:| ||||:||||||||||||||||||||||:||||||||||||||||||||||
Db        121 PVDPNGKNIKKEVGKILCTDCATRPKLKKMKSQTGEVGEKQSLKCEAAAGNPQPSYRWFK 180

Qy        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||:|||||
Db        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLHVNSVS 240

Qy        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||||||||||||||||||||| |: | ||
Db        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPNGFFGQRC 289


RESULT 3
US-08-753-007A-8
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; Sequence 8, Application US/08753007A
; Patent No. 6074841
; GENERAL INFORMATION:
; APPLICANT: Gearing, David P.
; APPLICANT: Busfield, Samantha J.
; TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
; TITLE OF INVENTION: AND USES THEREFOR
; NUMBER OF SEQUENCES: 33
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 225 Franklin Street
; CITY: Boston
; STATE: MA
; COUNTRY: US
; ZIP: 02110-2804
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSEQ Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/753,007A
; FILING DATE: 19-NOV-1996
; CLASSIFICATION: 536
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/699,591
; FILING DATE: 19-AUG-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Fasse, J. Peter
; REGISTRATION NUMBER: 32,983
; REFERENCE/DOCKET NUMBER: 07334/022001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 617-542-5070
; TELEFAX: 617-542-8906
; TELEX:
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 469 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FRAGMENT TYPE: internal
US-08-753-007A-8

Query Match 49.3%; Score 776; DB 3; Length 469;
Best Local Similarity 97.3%; Pred. No. 2e-62;
Matches 144; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

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Qy        142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 201
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 90

Qy        202 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 261
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         91 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 150
```

```
Qy        262 VNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              ||||||||||||||||||||| |: | ||
Db        151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178


RESULT 4
US-09-398-496-8
; Sequence 8, Application US/09398496
; Patent No. 6133423
;  GENERAL INFORMATION:
;    APPLICANT:  Gearing, David P.
;    APPLICANT:  Busfield, Samantha J.
;    TITLE OF INVENTION:  DON-1 GENE AND POLYPEPTIDES
;    TITLE OF INVENTION:  AND USES THEREFOR
;    NUMBER OF SEQUENCES:  33
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  US
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/398,496
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/753,007
;      FILING DATE:  19-NOV-1996
;      APPLICATION NUMBER:  08/699,591
;      FILING DATE:  19-AUG-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fasse, J. Peter
;      REGISTRATION NUMBER:  32,983
;      REFERENCE/DOCKET NUMBER:  07334/022001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  617-542-5070
;      TELEFAX:  617-542-8906
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  8:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  469 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  not relevant
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
;    FRAGMENT TYPE:  internal
US-09-398-496-8

  Query Match             49.3%;  Score 776;  DB 3;  Length 469;
  Best Local Similarity   97.3%;  Pred. No. 2e-62;
  Matches  144;  Conservative    1;  Mismatches    3;  Indels    0;  Gaps    0;
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Qy        142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 201
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 90

Qy        202 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 261
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         91 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 150

Qy        262 VNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||| |: | ||
Db        151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178
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RESULT 5
US-08-753-007A-32
; Sequence 32, Application US/08753007A
; Patent No. 6074841
; GENERAL INFORMATION:
; APPLICANT: Gearing, David P.
; APPLICANT: Busfield, Samantha J.
; TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
; TITLE OF INVENTION: AND USES THEREFOR
; NUMBER OF SEQUENCES: 33
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 225 Franklin Street
; CITY: Boston
; STATE: MA
; COUNTRY: US
; ZIP: 02110-2804
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSEQ Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/753,007A
; FILING DATE: 19-NOV-1996
; CLASSIFICATION: 536
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/699,591
; FILING DATE: 19-AUG-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Fasse, J. Peter
; REGISTRATION NUMBER: 32,983
; REFERENCE/DOCKET NUMBER: 07334/022001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 617-542-5070
; TELEFAX: 617-542-8906
; TELEX:
; INFORMATION FOR SEQ ID NO: 32:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 647 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear

; MOLECULE TYPE: protein
; FRAGMENT TYPE: internal
US-08-753-007A-32

Query Match 49.3%; Score 776; DB 3; Length 647;
Best Local Similarity 97.3%; Pred. No. 3e-62;
Matches 144; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

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Qy        142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 201
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 90

Qy        202 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 261
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         91 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 150

Qy        262 VNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||||  |: | ||
Db        151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178
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RESULT 6
US-09-398-496-32
; Sequence 32, Application US/09398496
; Patent No. 6133423
; GENERAL INFORMATION:
;   APPLICANT: Gearing, David P.
;   APPLICANT: Busfield, Samantha J.
;   TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
;   TITLE OF INVENTION: AND USES THEREFOR
;   NUMBER OF SEQUENCES: 33
;   CORRESPONDENCE ADDRESS:
;   ADDRESSEE: Fish & Richardson P.C.
;   STREET: 225 Franklin Street
;   CITY: Boston
;   STATE: MA
;   COUNTRY: US
;   ZIP: 02110-2804
;   COMPUTER READABLE FORM:
;   MEDIUM TYPE: Diskette
;   COMPUTER: IBM Compatible
;   OPERATING SYSTEM: DOS
;   SOFTWARE: FastSEQ Version 2.0
;   CURRENT APPLICATION DATA:
;   APPLICATION NUMBER: US/09/398,496
;   FILING DATE:
;   CLASSIFICATION:
;   PRIOR APPLICATION DATA:
;   APPLICATION NUMBER: 08/753,007
;   FILING DATE: 19-NOV-1996
;   APPLICATION NUMBER: 08/699,591
;   FILING DATE: 19-AUG-1996
;   ATTORNEY/AGENT INFORMATION:
;   NAME: Fasse, J. Peter
;   REGISTRATION NUMBER: 32,983
;   REFERENCE/DOCKET NUMBER: 07334/022001
;   TELECOMMUNICATION INFORMATION:

```
;       TELEPHONE:  617-542-5070
;       TELEFAX:  617-542-8906
;       TELEX:
;   INFORMATION FOR SEQ ID NO:  32:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  647 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  protein
;     FRAGMENT TYPE:  internal
US-09-398-496-32

  Query Match             49.3%;  Score 776;  DB 3;  Length 647;
  Best Local Similarity   97.3%;  Pred. No. 3e-62;
  Matches  144;  Conservative    1;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 201
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 90

Qy        202 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 261
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         91 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 150

Qy        262 VNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||| |: | ||
Db        151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178


RESULT 7
US-08-753-007A-6
; Sequence 6, Application US/08753007A
; Patent No. 6074841
;  GENERAL INFORMATION:
;    APPLICANT:  Gearing, David P.
;    APPLICANT:  Busfield, Samantha J.
;    TITLE OF INVENTION:  DON-1 GENE AND POLYPEPTIDES
;    TITLE OF INVENTION:  AND USES THEREFOR
;    NUMBER OF SEQUENCES:  33
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  US
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/753,007A
;      FILING DATE:  19-NOV-1996
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
```

```
;       APPLICATION NUMBER:  08/699,591
;       FILING DATE:  19-AUG-1996
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Fasse, J. Peter
;       REGISTRATION NUMBER:  32,983
;       REFERENCE/DOCKET NUMBER:  07334/022001
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  617-542-5070
;       TELEFAX:  617-542-8906
;       TELEX:
;   INFORMATION FOR SEQ ID NO:  6:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  407 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  not relevant
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  protein
;     FRAGMENT TYPE:  internal
US-08-753-007A-6

  Query Match             46.8%;  Score 736;  DB 3;  Length 407;
  Best Local Similarity   97.1%;  Pred. No. 7.1e-59;
  Matches  136;  Conservative    1;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 209
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 60

Qy        210 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy        270 IEGINQLSCKCPVGYTGDRC 289
              |||||||||||| |: | ||
Db        121 IEGINQLSCKCPNGFFGQRC 140


RESULT 8
US-09-398-496-6
; Sequence 6, Application US/09398496
; Patent No. 6133423
;  GENERAL INFORMATION:
;    APPLICANT:  Gearing, David P.
;    APPLICANT:  Busfield, Samantha J.
;    TITLE OF INVENTION:  DON-1 GENE AND POLYPEPTIDES
;    TITLE OF INVENTION:  AND USES THEREFOR
;    NUMBER OF SEQUENCES:  33
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  US
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
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;       OPERATING SYSTEM:  DOS
;       SOFTWARE:  FastSEQ Version 2.0
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/09/398,496
;       FILING DATE:
;       CLASSIFICATION:
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  08/753,007
;       FILING DATE:  19-NOV-1996
;       APPLICATION NUMBER:  08/699,591
;       FILING DATE:  19-AUG-1996
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Fasse, J. Peter
;       REGISTRATION NUMBER:  32,983
;       REFERENCE/DOCKET NUMBER:  07334/022001
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  617-542-5070
;       TELEFAX:  617-542-8906
;       TELEX:
;   INFORMATION FOR SEQ ID NO:  6:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  407 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  not relevant
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  protein
;     FRAGMENT TYPE:  internal
US-09-398-496-6

  Query Match             46.8%;  Score 736;  DB 3;  Length 407;
  Best Local Similarity   97.1%;  Pred. No. 7.1e-59;
  Matches  136;  Conservative    1;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 209
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 60

Qy        210 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy        270 IEGINQLSCKCPVGYTGDRC 289
              |||||||||||| |: | ||
Db        121 IEGINQLSCKCPNGFFGQRC 140


RESULT 9
US-08-753-007A-4
; Sequence 4, Application US/08753007A
; Patent No. 6074841
;  GENERAL INFORMATION:
;    APPLICANT:  Gearing, David P.
;    APPLICANT:  Busfield, Samantha J.
;    TITLE OF INVENTION:  DON-1 GENE AND POLYPEPTIDES
;    TITLE OF INVENTION:  AND USES THEREFOR
;    NUMBER OF SEQUENCES:  33
;    CORRESPONDENCE ADDRESS:
```

```
;       ADDRESSEE:  Fish & Richardson P.C.
;       STREET:  225 Franklin Street
;       CITY:  Boston
;       STATE:  MA
;       COUNTRY:  US
;       ZIP:  02110-2804
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Diskette
;       COMPUTER:  IBM Compatible
;       OPERATING SYSTEM:  DOS
;       SOFTWARE:  FastSEQ Version 2.0
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/753,007A
;       FILING DATE:  19-NOV-1996
;       CLASSIFICATION:  536
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  08/699,591
;       FILING DATE:  19-AUG-1996
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Fasse, J. Peter
;       REGISTRATION NUMBER:  32,983
;       REFERENCE/DOCKET NUMBER:  07334/022001
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  617-542-5070
;       TELEFAX:  617-542-8906
;       TELEX:
;   INFORMATION FOR SEQ ID NO:  4:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  181 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  not relevant
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  protein
;     FRAGMENT TYPE:  internal
US-08-753-007A-4

  Query Match             45.5%;  Score 716;  DB 3;  Length 181;
  Best Local Similarity   94.3%;  Pred. No. 1.6e-57;
  Matches  132;  Conservative    4;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 209
              ||||||:|||||||||||||||||||||||||||||||||||||||| ||||||||||
Db          1 MKSQTGEVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNVRKNSRLQFNKV 60

Qy        210 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
              :|||||||||||||||||||||:|||||||||||||||||||||||||||||||||||||
Db         61 RVEDAGEYVCEAENILGKDTVRGRLHVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy        270 IEGINQLSCKCPVGYTGDRC 289
              |||||||||||| |: | ||
Db        121 IEGINQLSCKCPNGFFGQRC 140


RESULT 10
US-09-398-496-4
; Sequence 4, Application US/09398496
; Patent No. 6133423
```

```
;  GENERAL INFORMATION:
;    APPLICANT:  Gearing, David P.
;    APPLICANT:  Busfield, Samantha J.
;    TITLE OF INVENTION:  DON-1 GENE AND POLYPEPTIDES
;    TITLE OF INVENTION:  AND USES THEREFOR
;    NUMBER OF SEQUENCES:  33
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  US
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/398,496
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/753,007
;      FILING DATE:  19-NOV-1996
;      APPLICATION NUMBER:  08/699,591
;      FILING DATE:  19-AUG-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fasse, J. Peter
;      REGISTRATION NUMBER:  32,983
;      REFERENCE/DOCKET NUMBER:  07334/022001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  617-542-5070
;      TELEFAX:  617-542-8906
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  181 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  not relevant
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
;    FRAGMENT TYPE:  internal
US-09-398-496-4

  Query Match             45.5%;  Score 716;  DB 3;  Length 181;
  Best Local Similarity   94.3%;  Pred. No. 1.6e-57;
  Matches  132;  Conservative    4;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 209
              ||||||:||||||||||||||||||||||||||||||||||| ||||||||||
Db          1 MKSQTGEVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNVRKNSRLQFNKV 60

Qy        210 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
              :|||||||||||||||||||:|||||||||||||||||||||||||||||||||||||||
Db         61 RVEDAGEYVCEAENILGKDTVRGRLHVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120
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Qy         270 IEGINQLSCKCPVGYTGDRC 289
               |||||||||||| |: | ||
Db         121 IEGINQLSCKCPNGFFGQRC 140


RESULT 11
US-08-753-007A-2
; Sequence 2, Application US/08753007A
; Patent No. 6074841
;  GENERAL INFORMATION:
;    APPLICANT:  Gearing, David P.
;    APPLICANT:  Busfield, Samantha J.
;    TITLE OF INVENTION:  DON-1 GENE AND POLYPEPTIDES
;    TITLE OF INVENTION:  AND USES THEREFOR
;    NUMBER OF SEQUENCES:  33
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  US
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/753,007A
;      FILING DATE:  19-NOV-1996
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/699,591
;      FILING DATE:  19-AUG-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fasse, J. Peter
;      REGISTRATION NUMBER:  32,983
;      REFERENCE/DOCKET NUMBER:  07334/022001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  617-542-5070
;      TELEFAX:  617-542-8906
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  605 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  not relevant
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
;    FRAGMENT TYPE:  internal
US-08-753-007A-2

  Query Match             45.5%;  Score 716;  DB 3;  Length 605;
  Best Local Similarity   94.3%;  Pred. No. 7.9e-57;
  Matches  132;  Conservative    4;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 209
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              ||||||:||||||||||||||||||||||||||||||||||||||||| ||||||||||
Db             1 MKSQTGEVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNVRKNSRLQFNKV 60

Qy           210 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
                 :|||||||||||||||||||||||:|||||||||||||||||||||||||||||||||||
Db            61 RVEDAGEYVCEAENILGKDTVRGRLHVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy           270 IEGINQLSCKCPVGYTGDRC 289
                 |||||||||||| |: | ||
Db           121 IEGINQLSCKCPNGFFGQRC 140


RESULT 12
US-09-398-496-2
; Sequence 2, Application US/09398496
; Patent No. 6133423
;  GENERAL INFORMATION:
;    APPLICANT:  Gearing, David P.
;    APPLICANT:  Busfield, Samantha J.
;    TITLE OF INVENTION:  DON-1 GENE AND POLYPEPTIDES
;    TITLE OF INVENTION:  AND USES THEREFOR
;    NUMBER OF SEQUENCES:  33
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  US
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/398,496
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/753,007
;      FILING DATE:  19-NOV-1996
;      APPLICATION NUMBER:  08/699,591
;      FILING DATE:  19-AUG-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fasse, J. Peter
;      REGISTRATION NUMBER:  32,983
;      REFERENCE/DOCKET NUMBER:  07334/022001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  617-542-5070
;      TELEFAX:  617-542-8906
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  605 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  not relevant
;      TOPOLOGY:  linear
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; MOLECULE TYPE: protein
; FRAGMENT TYPE: internal
US-09-398-496-2

  Query Match 45.5%; Score 716; DB 3; Length 605;
  Best Local Similarity 94.3%; Pred. No. 7.9e-57;
  Matches 132; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

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Db          1 MKSQTGEVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNVRKNSRLQFNKV 60

Qy        210 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
              :|||||||||||||||||||||:||||||||||||||||||||||||||||||||||||||
Db         61 RVEDAGEYVCEAENILGKDTVRGRLHVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy        270 IEGINQLSCKCPVGYTGDRC 289
              |||||||||||| |: | ||
Db        121 IEGINQLSCKCPNGFFGQRC 140
```

RESULT 13
US-08-470-339-189
; Sequence 189, Application US/08470339C
; Patent No. 6232286
; GENERAL INFORMATION:
; APPLICANT: GOODEARL, ANDREW
; APPLICANT: STROOBANT, PAUL
; APPLICANT: MINGHETTI, LUISA
; APPLICANT: WATERFIELD, MICHAEL
; APPLICANT: MARCHIONNI, MARK
; APPLICANT: CHEN, MARIO S.
; APPLICANT: HILES, IAN
; TITLE OF INVENTION: GLIAL MITOGENIC FACTORS, THEIR
; TITLE OF INVENTION: PREPARATION AND USE
; FILE REFERENCE: 04585/002008
; CURRENT APPLICATION NUMBER: US/08/470,339C
; CURRENT FILING DATE: 1995-06-06
; EARLIER APPLICATION NUMBER: 08/036,555
; EARLIER FILING DATE: 1993-03-24
; EARLIER APPLICATION NUMBER: 07/940,389
; EARLIER FILING DATE: 1992-09-03
; EARLIER APPLICATION NUMBER: 07/907,138
; EARLIER FILING DATE: 1992-06-30
; EARLIER APPLICATION NUMBER: 07/863,703
; EARLIER FILING DATE: 1992-04-03
; EARLIER APPLICATION NUMBER: 91 07566.3 GB
; EARLIER FILING DATE: 1999-04-10
; NUMBER OF SEQ ID NOS: 226
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 189
; LENGTH: 411
; TYPE: PRT
; ORGANISM: Homo sapiens
US-08-470-339-189

  Query Match 34.6%; Score 545; DB 3; Length 411;

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  Best Local Similarity   35.6%;  Pred. No. 1.7e-41;
  Matches  127;  Conservative   62;  Mismatches   90;  Indels   78;  Gaps   13;

Qy          15 GVSLACYS--PSLKSVQDQAYKAPVVVEGKV------QGLV-----PAGGSSS--NSTRE 59
               | |: |||  ||: |||: | :| ||:||||      || :      | | :      ||
Db          58 GASV-CYSSPPSVGSVQELAQRAAVVIEGKVHPQRRQQGALDRKAAAAAGEAGAWGGDRE 116

Qy          60 PPASGRVA-----------------------------------LVKVLDKWPLRSGGLQ 83
               |||:|  |                                   ||||   | :::|||:
Db         117 PPAAGPRALGPPAEEPLLAANGTVPSWPTAPVPSAGEPGEEAPYLVKVHQVWAVKAGGLK 176

Qy          84 REQVISV----------GSCVPLERNQRYIFFLEP-----TEQPLVFKTAFAPLDTNGKN 128
               :: :::|           ||  |: : |||||:||     :  |  |: :| ||:| |:|
Db         177 KDSLLTVRLGTWGHPAFPSCGRLKEDSRYIFFMEPDANSTSRAPAAFRASFPPLET-GRN 235

Qy         129 LKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRS 188
               ||||| ::||  ||  |:||:||||    | |  |:|| ::      ::||||:| ||||
Db         236 LKKEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLRCETSSEYSSLRFKWFKNGNELNRK 295

Qy         189 ---RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSS 245
                  ::|:|:   |:  | |: ||  : |:|||:|:  : || |:    : :   : | :|
Db         296 NKPQNIKIQKKPGK--SELRINKASLADSGEYMCKVISKLGNDSASANITIVESNATSTS 353

Qy         246 WSG--HARKCNETAKSYCVNGGVCYYIEGINQLS---CKCPVGYTGDRCQQFAMVNF 297
                :|  |  || |  |::|||||| |: :: ::  |   ||||  :|||||| : | :|
Db         354 TTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASF 410
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RESULT 14
US-08-467-602-324
; Sequence 324, Application US/08467602C
; Patent No. 6444642
; GENERAL INFORMATION:
;  APPLICANT: Sklar, Robert
;  APPLICANT: Marchionni, Mark
;  APPLICANT: Gwynne, David I.
;  TITLE OF INVENTION: METHODS FOR TREATING MUSCLE DISEASES AND
;  TITLE OF INVENTION: DISORDERS
;  FILE REFERENCE: 04585/028003
;  CURRENT APPLICATION NUMBER: US/08/467,602C
;  CURRENT FILING DATE: 1995-06-06
;  EARLIER APPLICATION NUMBER: 08/209,204
;  EARLIER FILING DATE: 1994-03-08
;  EARLIER APPLICATION NUMBER: 08/059,022
;  EARLIER FILING DATE: 1993-05-06
;  NUMBER OF SEQ ID NOS: 420
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 324
;   LENGTH: 422
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-08-467-602-324

  Query Match             34.6%;  Score 545;  DB 4;  Length 422;
  Best Local Similarity   35.6%;  Pred. No. 1.7e-41;
  Matches  127;  Conservative   62;  Mismatches   90;  Indels   78;  Gaps   13;
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Qy          15 GVSLACYS--PSLKSVQDQAYKAPVVVEGKV------QGLV-----PAGGSSS--NSTRE 59
               | |: |||  ||: |||: | :| ||:||||      || :      | | :      ||
Db          58 GASV-CYSSPPSVGSVQELAQRAAVVIEGKVHPQRRQQGALDRKAAAAAGEAGAWGGDRE 116

Qy          60 PPASGRVA-----------------------------------LVKVLDKWPLRSGGLQ 83
               |||:|  |                                   ||||   | :::|||:
Db         117 PPAAGPRALGPPAEEPLLAANGTVPSWPTAPVPSAGEPGEEAPYLVKVHQVWAVKAGGLK 176

Qy          84 REQVISV----------GSCVPLERNQRYIFFLEP-----TEQPLVFKTAFAPLDTNGKN 128
               :: :::|           ||  |: : |||||:||     :  |  |: :| ||:| |:|
Db         177 KDSLLTVRLGTWGHPAFPSCGRLKEDSRYIFFMEPDANSTSRAPAAFRASFPPLET-GRN 235

Qy         129 LKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRS 188
               ||||| ::||  ||  |:||:||||    | |  |:|| ::      ::|||:| ||||
Db         236 LKKEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLRCETSSEYSSLRFKWFKNGNELNRK 295

Qy         189 ---RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSS 245
                  ::|:|:   |:  | |: ||  : |:|||:|:  : || |:    : :   : | :|
Db         296 NKPQNIKIQKKPGK--SELRINKASLADSGEYMCKVISKLGNDSASANITIVESNATSTS 353

Qy         246 WSG--HARKCNETAKSYCVNGGVCYYIEGINQLS---CKCPVGYTGDRCQQFAMVNF 297
                :|  |  || |  |::|||| |: :: ::  |   ||||  :||||| : | :|
Db         354 TTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASF 410
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RESULT 15
US-08-467-602-366
; Sequence 366, Application US/08467602C
; Patent No. 6444642
; GENERAL INFORMATION:
; APPLICANT: Sklar, Robert
; APPLICANT: Marchionni, Mark
; APPLICANT: Gwynne, David I.
; TITLE OF INVENTION: METHODS FOR TREATING MUSCLE DISEASES AND
; TITLE OF INVENTION: DISORDERS
; FILE REFERENCE: 04585/028003
; CURRENT APPLICATION NUMBER: US/08/467,602C
; CURRENT FILING DATE: 1995-06-06
; EARLIER APPLICATION NUMBER: 08/209,204
; EARLIER FILING DATE: 1994-03-08
; EARLIER APPLICATION NUMBER: 08/059,022
; EARLIER FILING DATE: 1993-05-06
; NUMBER OF SEQ ID NOS: 420
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 366
; LENGTH: 456
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: VARIANT
; LOCATION: (34)...(34)
; OTHER INFORMATION: Xaa is any amino acid
US-08-467-602-366

Query Match 34.6%; Score 545; DB 4; Length 456;
Best Local Similarity 35.6%; Pred. No. 1.9e-41;
Matches 127; Conservative 62; Mismatches 90; Indels 78; Gaps 13;

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Qy          15 GVSLACYS--PSLKSVQDQAYKAPVVVEGKV------QGLV-----PAGGSSS--NSTRE 59
               | |: |||  ||: |||: | :| ||:||||      || :      | | :      ||
Db          92 GASV-CYSSPPSVGSVQELAQRAAVVIEGKVHPQRRQQGALDRKAAAAAGEAGAWGGDRE 150

Qy          60 PPASGRVA-----------------------------------LVKVLDKWPLRSGGLQ 83
               |||:|  |                                   ||||   | :::|||:
Db         151 PPAAGPRALGPPAEEPLLAANGTVPSWPTAPVPSAGEPGEEAPYLVKVHQVWAVKAGGLK 210

Qy          84 REQVISV----------GSCVPLERNQRYIFFLEP-----TEQPLVFKTAFAPLDTNGKN 128
               :: :::|           ||  |: : |||||:||     :  |  |: :| ||:| |:|
Db         211 KDSLLTVRLGTWGHPAFPSCGRLKEDSRYIFFMEPDANSTSRAPAAFRASFPPLET-GRN 269

Qy         129 LKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRS 188
               ||||| ::||  ||  |:||:||||    | |  |:|| ::      ::|||:| ||||
Db         270 LKKEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLRCETSSEYSSLRFKWFKNGNELNRK 329

Qy         189 ---RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSS 245
                  ::|:|:   |:  | |: ||  : |:|||:|:  : || |:    : :   : | :|
Db         330 NKPQNIKIQKKPGK--SELRINKASLADSGEYMCKVISKLGNDSASANITIVESNATSTS 387

Qy         246 WSG--HARKCNETAKSYCVNGGVCYYIEGINQLS---CKCPVGYTGDRCQQFAMVNF 297
                :|  |  || |  |::|||||  |: :: ::  |   ||||  :|||||| : | :|
Db         388 TTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASF 444
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Search completed: January 14, 2004, 07:28:17
Job time : 14.2357 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: January 14, 2004, 07:27:01 ; Search time 27.5223 Seconds
(without alignments)
2214.038 Million cell updates/sec

Title: US-09-864-675-4
Perfect score: 1574
Sequence: 1 MRRDPAPGFSMLLFGVSLAC.....KCPVGYTGDRCQQFAMVNFS 298

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 762491 seqs, 204481190 residues

Total number of hits satisfying chosen parameters: 762491

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA:*
1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
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13: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*
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18: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description

1	1574	100.0	298	9	US-09-864-675-4	Sequence 4, Appli
2	1505	95.6	330	9	US-09-864-675-2	Sequence 2, Appli
3	776	49.3	469	14	US-10-096-241-8	Sequence 8, Appli
4	776	49.3	647	14	US-10-096-241-32	Sequence 32, Appl
5	736	46.8	407	14	US-10-096-241-6	Sequence 6, Appli
6	716	45.5	181	14	US-10-096-241-4	Sequence 4, Appli
7	716	45.5	605	14	US-10-096-241-2	Sequence 2, Appli
8	544	34.6	422	7	US-08-736-019-170	Sequence 170, App
9	542	34.4	418	9	US-09-795-668-3	Sequence 3, Appli
10	542	34.4	418	9	US-09-795-686-3	Sequence 3, Appli
11	542	34.4	418	10	US-09-946-807-3	Sequence 3, Appli
12	504	32.0	139	14	US-10-096-241-33	Sequence 33, Appl
13	375	23.8	204	9	US-09-795-668-4	Sequence 4, Appli
14	375	23.8	204	9	US-09-795-686-4	Sequence 4, Appli
15	375	23.8	204	10	US-09-946-807-4	Sequence 4, Appli
16	325	20.6	501	15	US-10-290-578-10	Sequence 10, Appl
17	325	20.6	768	9	US-09-773-517-11	Sequence 11, Appl
18	325	20.6	768	9	US-09-792-025-11	Sequence 11, Appl
19	325	20.6	768	9	US-09-849-868-11	Sequence 11, Appl
20	325	20.6	768	10	US-09-808-602-85	Sequence 85, Appl
21	325	20.6	768	12	US-10-453-183-11	Sequence 11, Appl
22	325	20.6	768	15	US-10-290-578-2	Sequence 2, Appli
23	317	20.1	192	9	US-09-795-668-2	Sequence 2, Appli
24	317	20.1	192	9	US-09-795-686-2	Sequence 2, Appli
25	317	20.1	192	10	US-09-946-807-2	Sequence 2, Appli
26	306.5	19.5	239	9	US-09-795-668-18	Sequence 18, Appl
27	306.5	19.5	239	9	US-09-795-686-18	Sequence 18, Appl
28	306.5	19.5	239	10	US-09-946-807-18	Sequence 18, Appl
29	306.5	19.5	629	9	US-09-795-668-14	Sequence 14, Appl
30	306.5	19.5	629	9	US-09-795-686-14	Sequence 14, Appl
31	306.5	19.5	629	10	US-09-946-807-14	Sequence 14, Appl
32	306.5	19.5	637	9	US-09-795-668-13	Sequence 13, Appl
33	306.5	19.5	637	9	US-09-795-686-13	Sequence 13, Appl
34	306.5	19.5	637	10	US-09-946-807-13	Sequence 13, Appl
35	306.5	19.5	645	14	US-10-096-241-10	Sequence 10, Appl
36	305.5	19.4	241	9	US-09-773-517-7	Sequence 7, Appli
37	305.5	19.4	241	9	US-09-792-025-7	Sequence 7, Appli
38	305.5	19.4	241	9	US-09-849-868-7	Sequence 7, Appli
39	305.5	19.4	241	12	US-10-453-183-7	Sequence 7, Appli
40	305.5	19.4	420	9	US-09-773-517-9	Sequence 9, Appli
41	305.5	19.4	420	9	US-09-792-025-9	Sequence 9, Appli
42	305.5	19.4	420	9	US-09-849-868-9	Sequence 9, Appli
43	305.5	19.4	420	12	US-10-453-183-9	Sequence 9, Appli
44	305.5	19.4	637	9	US-09-773-517-5	Sequence 5, Appli
45	305.5	19.4	637	9	US-09-792-025-5	Sequence 5, Appli

ALIGNMENTS

RESULT 1
US-09-864-675-4
; Sequence 4, Application US/09864675
; Patent No. US20020081286A1
; GENERAL INFORMATION:
; APPLICANT: Marchionni, Mark

```
;  TITLE OF INVENTION: NRG-2 NUCLEIC ACID MOLECULES,
;  TITLE OF INVENTION:  POLYPEPTIDES, AND DIAGNOSTIC AND THERAPEUTIC METHODS
;  FILE REFERENCE: 04585/049002
;  CURRENT APPLICATION NUMBER: US/09/864,675
;  CURRENT FILING DATE:  2001-05-23
;  PRIOR APPLICATION NUMBER: US 60/206,495
;  PRIOR FILING DATE: 2000-05-23
;  NUMBER OF SEQ ID NOS: 18
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-864-675-4

  Query Match             100.0%;  Score 1574;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1e-121;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60
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Db          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60

Qy         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120

Qy        121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
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Db        121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180

Qy        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 240

Qy        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCQQFAMVNFS 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCQQFAMVNFS 298


RESULT 2
US-09-864-675-2
; Sequence 2, Application US/09864675
; Patent No. US20020081286A1
; GENERAL INFORMATION:
;  APPLICANT: Marchionni, Mark
;  TITLE OF INVENTION: NRG-2 NUCLEIC ACID MOLECULES,
;  TITLE OF INVENTION:  POLYPEPTIDES, AND DIAGNOSTIC AND THERAPEUTIC METHODS
;  FILE REFERENCE: 04585/049002
;  CURRENT APPLICATION NUMBER: US/09/864,675
;  CURRENT FILING DATE:  2001-05-23
;  PRIOR APPLICATION NUMBER: US 60/206,495
;  PRIOR FILING DATE: 2000-05-23
;  NUMBER OF SEQ ID NOS: 18
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
;   LENGTH: 330
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-864-675-2

Query Match 95.6%; Score 1505; DB 9; Length 330;
Best Local Similarity 98.6%; Pred. No. 5.6e-116;
Matches 285; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

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Qy          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60

Qy         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120

Qy        121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180

Qy        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVS 240

Qy        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||||||||||||||||||||| |: | ||
Db        241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPNGFFGQRC 289
```

RESULT 3
US-10-096-241-8
; Sequence 8, Application US/10096241
; Publication No. US20020127594A1
; GENERAL INFORMATION:
; APPLICANT: Gearing, David P.
; Busfield, Samantha J.
; TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
; AND USES THEREFOR
; NUMBER OF SEQUENCES: 33
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 225 Franklin Street
; CITY: Boston
; STATE: MA
; COUNTRY: US
; ZIP: 02110-2804
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSEQ Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/096,241
; FILING DATE: 12-Mar-2002
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/699,591

```
;             FILING DATE: 19-AUG-1996
;          ATTORNEY/AGENT INFORMATION:
;             NAME: Fasse, J. Peter
;             REGISTRATION NUMBER: 32,983
;             REFERENCE/DOCKET NUMBER: 07334/022001
;          TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 617-542-5070
;             TELEFAX: 617-542-8906
;             TELEX: <Unknown>
;    INFORMATION FOR SEQ ID NO: 8:
;          SEQUENCE CHARACTERISTICS:
;             LENGTH: 469 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: not relevant
;             TOPOLOGY: linear
;          MOLECULE TYPE: protein
;          FRAGMENT TYPE: internal
;          SEQUENCE DESCRIPTION: SEQ ID NO: 8:
US-10-096-241-8

  Query Match             49.3%;  Score 776;  DB 14;  Length 469;
  Best Local Similarity   97.3%;  Pred. No. 1e-55;
  Matches  144;  Conservative    1;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 201
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 90

Qy        202 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 261
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         91 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 150

Qy        262 VNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||| |: | ||
Db        151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178


RESULT 4
US-10-096-241-32
; Sequence 32, Application US/10096241
; Publication No. US20020127594A1
;   GENERAL INFORMATION:
;        APPLICANT: Gearing, David P.
;                   Busfield, Samantha J.
;        TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
;                            AND USES THEREFOR
;        NUMBER OF SEQUENCES: 33
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Fish & Richardson P.C.
;             STREET: 225 Franklin Street
;             CITY: Boston
;             STATE: MA
;             COUNTRY: US
;             ZIP: 02110-2804
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Diskette
;             COMPUTER: IBM Compatible
```

```
;              OPERATING SYSTEM: DOS
;              SOFTWARE: FastSEQ Version 2.0
;         CURRENT APPLICATION DATA:
;              APPLICATION NUMBER: US/10/096,241
;              FILING DATE: 12-Mar-2002
;              CLASSIFICATION: <Unknown>
;         PRIOR APPLICATION DATA:
;              APPLICATION NUMBER: 08/699,591
;              FILING DATE: 19-AUG-1996
;         ATTORNEY/AGENT INFORMATION:
;              NAME: Fasse, J. Peter
;              REGISTRATION NUMBER: 32,983
;              REFERENCE/DOCKET NUMBER: 07334/022001
;         TELECOMMUNICATION INFORMATION:
;              TELEPHONE: 617-542-5070
;              TELEFAX: 617-542-8906
;              TELEX: <Unknown>
;    INFORMATION FOR SEQ ID NO: 32:
;         SEQUENCE CHARACTERISTICS:
;              LENGTH: 647 amino acids
;              TYPE: amino acid
;              STRANDEDNESS: single
;              TOPOLOGY: linear
;         MOLECULE TYPE: protein
;         FRAGMENT TYPE: internal
;         SEQUENCE DESCRIPTION: SEQ ID NO: 32:
US-10-096-241-32

  Query Match             49.3%;  Score 776;  DB 14;  Length 647;
  Best Local Similarity   97.3%;  Pred. No. 1.5e-55;
  Matches  144;  Conservative    1;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 201
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKN 90

Qy        202 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 261
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         91 SRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYC 150

Qy        262 VNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||| |: | ||
Db        151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178


RESULT 5
US-10-096-241-6
; Sequence 6, Application US/10096241
; Publication No. US20020127594A1
;   GENERAL INFORMATION:
;         APPLICANT: Gearing, David P.
;                    Busfield, Samantha J.
;         TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
;                             AND USES THEREFOR
;         NUMBER OF SEQUENCES: 33
;         CORRESPONDENCE ADDRESS:
;              ADDRESSEE: Fish & Richardson P.C.
```

```
;               STREET: 225 Franklin Street
;               CITY: Boston
;               STATE: MA
;               COUNTRY: US
;               ZIP: 02110-2804
;          COMPUTER READABLE FORM:
;               MEDIUM TYPE: Diskette
;               COMPUTER: IBM Compatible
;               OPERATING SYSTEM: DOS
;               SOFTWARE: FastSEQ Version 2.0
;          CURRENT APPLICATION DATA:
;               APPLICATION NUMBER: US/10/096,241
;               FILING DATE: 12-Mar-2002
;               CLASSIFICATION: <Unknown>
;          PRIOR APPLICATION DATA:
;               APPLICATION NUMBER: 08/699,591
;               FILING DATE: 19-AUG-1996
;          ATTORNEY/AGENT INFORMATION:
;               NAME: Fasse, J. Peter
;               REGISTRATION NUMBER: 32,983
;               REFERENCE/DOCKET NUMBER: 07334/022001
;          TELECOMMUNICATION INFORMATION:
;               TELEPHONE: 617-542-5070
;               TELEFAX: 617-542-8906
;               TELEX: <Unknown>
;     INFORMATION FOR SEQ ID NO: 6:
;          SEQUENCE CHARACTERISTICS:
;               LENGTH: 407 amino acids
;               TYPE: amino acid
;               STRANDEDNESS: not relevant
;               TOPOLOGY: linear
;          MOLECULE TYPE: protein
;          FRAGMENT TYPE: internal
;          SEQUENCE DESCRIPTION: SEQ ID NO: 6:
US-10-096-241-6

  Query Match             46.8%;  Score 736;  DB 14;  Length 407;
  Best Local Similarity   97.1%;  Pred. No. 1.7e-52;
  Matches  136;  Conservative    1;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 209
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 60

Qy        210 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy        270 IEGINQLSCKCPVGYTGDRC 289
              |||||||||||| |: | ||
Db        121 IEGINQLSCKCPNGFFGQRC 140


RESULT 6
US-10-096-241-4
; Sequence 4, Application US/10096241
; Publication No. US20020127594A1
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;   GENERAL INFORMATION:
;        APPLICANT: Gearing, David P.
;                   Busfield, Samantha J.
;        TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
;                            AND USES THEREFOR
;        NUMBER OF SEQUENCES: 33
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Fish & Richardson P.C.
;             STREET: 225 Franklin Street
;             CITY: Boston
;             STATE: MA
;             COUNTRY: US
;             ZIP: 02110-2804
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Diskette
;             COMPUTER: IBM Compatible
;             OPERATING SYSTEM: DOS
;             SOFTWARE: FastSEQ Version 2.0
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/096,241
;             FILING DATE: 12-Mar-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/699,591
;             FILING DATE: 19-AUG-1996
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Fasse, J. Peter
;             REGISTRATION NUMBER: 32,983
;             REFERENCE/DOCKET NUMBER: 07334/022001
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 617-542-5070
;             TELEFAX: 617-542-8906
;             TELEX: <Unknown>
;   INFORMATION FOR SEQ ID NO: 4:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 181 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: not relevant
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        FRAGMENT TYPE: internal
;        SEQUENCE DESCRIPTION: SEQ ID NO: 4:
US-10-096-241-4

  Query Match             45.5%;  Score 716;  DB 14;  Length 181;
  Best Local Similarity   94.3%;  Pred. No. 2.7e-51;
  Matches  132;  Conservative    4;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 209
              ||||||:||||||||||||||||||||||||||||||||||||| ||||||||||
Db          1 MKSQTGEVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNVRKNSRLQFNKV 60

Qy        210 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
              :|||||||||||||||||||:||||||||||||||||||||||||||||||||||||||
Db         61 RVEDAGEYVCEAENILGKDTVRGRLHVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy        270 IEGINQLSCKCPVGYTGDRC 289
```

```
              ||||||||||||  |: |  ||
Db        121 IEGINQLSCKCPNGFFGQRC 140


RESULT 7
US-10-096-241-2
; Sequence 2, Application US/10096241
; Publication No. US20020127594A1
;   GENERAL INFORMATION:
;        APPLICANT: Gearing, David P.
;                   Busfield, Samantha J.
;        TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
;                            AND USES THEREFOR
;        NUMBER OF SEQUENCES: 33
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Fish & Richardson P.C.
;             STREET: 225 Franklin Street
;             CITY: Boston
;             STATE: MA
;             COUNTRY: US
;             ZIP: 02110-2804
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Diskette
;             COMPUTER: IBM Compatible
;             OPERATING SYSTEM: DOS
;             SOFTWARE: FastSEQ Version 2.0
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/096,241
;             FILING DATE: 12-Mar-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/699,591
;             FILING DATE: 19-AUG-1996
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Fasse, J. Peter
;             REGISTRATION NUMBER: 32,983
;             REFERENCE/DOCKET NUMBER: 07334/022001
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 617-542-5070
;             TELEFAX: 617-542-8906
;             TELEX: <Unknown>
;   INFORMATION FOR SEQ ID NO: 2:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 605 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: not relevant
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        FRAGMENT TYPE: internal
;        SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-10-096-241-2

  Query Match             45.5%;  Score 716;  DB 14;  Length 605;
  Best Local Similarity   94.3%;  Pred. No. 1.2e-50;
  Matches  132;  Conservative    4;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 209
```

```
                ||||||:||||||||||||||||||||||||||||||||||||||||| ||||||||||
Db            1 MKSQTGEVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNVRKNSRLQFNKV 60

Qy          210 KVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
                :|||||||||||||||||||||:||||||||||||||||||||||||||||||||||||
Db           61 RVEDAGEYVCEAENILGKDTVRGRLHVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy          270 IEGINQLSCKCPVGYTGDRC 289
                |||||||||||| |: | ||
Db          121 IEGINQLSCKCPNGFFGQRC 140


RESULT 8
US-08-736-019-170
; Sequence 170, Application US/08736019
; Publication No. US20030207799A1
;  GENERAL INFORMATION:
;    APPLICANT:  Goodearl, Andrew
;    APPLICANT:  Stroobant, Paul
;    APPLICANT:  Minghetti, Luisa
;    APPLICANT:  Waterfield, Michael
;    APPLICANT:  Marchionni, Mark
;    APPLICANT:  Chen, Mario
;    APPLICANT:  Hiles, Ian
;    TITLE OF INVENTION:  GLIAL MITOGENIC FACTORS, THEIR
;    TITLE OF INVENTION:  PREPARATION AND USE
;    NUMBER OF SEQUENCES:  189
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Clark & Elbing LLP
;      STREET:  176 Federal Street
;      CITY:  Boston
;      STATE:  Massachusetts
;      COUNTRY:  U.S.A.
;      ZIP:  02110
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      COMPUTER:  IBM Compatible Pentium
;      OPERATING SYSTEM:  Windows95
;      SOFTWARE:  FastSeq Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/736,019
;      FILING DATE:  22-OCT-1996
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/471,833
;      FILING DATE:  06-JUN-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/036,555
;      FILING DATE:  24-MAR-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/965,173
;      FILING DATE:  23-OCT-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/907,138
;      FILING DATE:  30-JUN-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/940,389
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;       FILING DATE:  03-SEP-1992
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  07/863,703
;       FILING DATE:  03-APR-1992
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  UK 91 07566.3
;       FILING DATE:  10-APR-1991
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Bieker-Brady, Kristina
;       REGISTRATION NUMBER:  39,109
;       REFERENCE/DOCKET NUMBER:  04585/00200Q
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (617) 428-0200
;       TELEFAX:  (617) 428-7045
;       TELEX:
;   INFORMATION FOR SEQ ID NO:  170:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  422
;       TYPE:  amino acid
;       STRANDEDNESS:
;       TOPOLOGY:  linear
US-08-736-019-170

  Query Match             34.6%;  Score 544;  DB 7;  Length 422;
  Best Local Similarity   35.6%;  Pred. No. 1.2e-36;
  Matches  127;  Conservative   62;  Mismatches   90;  Indels   78;  Gaps   13;

Qy         15 GVSLACYS--PSLKSVQDQAYKAPVVVEGKV------QGLV-----PAGGSSS--NSTRE 59
              | |: ||| .||: |||: | :| ||:||||      || :      | | :      ||
Db         58 GASV-CYSSPPSVGSVQELAQRAAVVIEGKVHPQRRQQGALDRKAAAAAGEAGAWGGDRE 116

Qy         60 PPASGRVA-----------------------------------LVKVLDKWPLRSGGLQ 83
              |||:|  |                                   ||||  | :::|||:
Db        117 PPAAGPRALGPPAEEPLLAANGTVPSWPTAPVPSAGEPGEEAPYLVKVHQVWAVKAGGLK 176

Qy         84 REQVISV----------GSCVPLERNQRYIFFLEP-----TEQPLVFKTAFAPLDTNGKN 128
              :: :::|           ||  |: : |||||:||     :  |  |: :| ||:| |:|
Db        177 KDSLLTVRLGTWGHPAFPSCGRLKEDSRYIFFMEPDANSTSRAPAAFRASFPPLET-GRN 235

Qy        129 LKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRS 188
              ||||| ::||  ||  |:||:|||    | |  |:|| ::      ::|||:| ||||
Db        236 LKKEVSRVLCKRCALPPQLKEMKSQESAAGSKLVLRCETSSEYSSLRFKWFKNGNELNRK 295

Qy        189 ---RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSS 245
                 ::|:|:   |:  | |: ||  : |:|||:|:  : || |:    : :   : | :|
Db        296 NKPQNIKIQKKPGK--SELRINKASLADSGEYMCKVISKLGNDSASANITIVESNATSTS 353

Qy        246 WSG--HARKCNETAKSYCVNGGVCYYIEGINQLS---CKCPVGYTGDRCQQFAMVNF 297
               :|  |  || |  |::|||| |: :: ::  |   |||| :|||||| : | :|
Db        354 TTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASF 410


RESULT 9
US-09-795-668-3
; Sequence 3, Application US/09795668
; Patent No. US20020045577A1
; GENERAL INFORMATION:
```

```
;  APPLICANT: Stefansson, Hreinn
;  APPLICANT:  Steinthorsdottir, Valgerdur
;  APPLICANT:  Gulcher, Jeffrey R.
;  TITLE OF INVENTION: HUMAN SCHIZOPHRENIA GENE
;  FILE REFERENCE: 2345.2004-001
;  CURRENT APPLICATION NUMBER: US/09/795,668
;  CURRENT FILING DATE:  2001-02-28
;  PRIOR APPLICATION NUMBER: US 09/515,716
;  PRIOR FILING DATE: 2000-02-28
;  NUMBER OF SEQ ID NOS: 1531
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
;   LENGTH: 418
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-795-668-3

  Query Match             34.4%;  Score 542;  DB 9;  Length 418;
  Best Local Similarity   35.2%;  Pred. No. 1.7e-36;
  Matches  125;  Conservative   62;  Mismatches   92;  Indels   76;  Gaps   12;

Qy          15 GVSLACYSPSLKSVQDQAYKAPVVVEGKV------QGLV-----PAGGSSS--NSTREPP 61
               | |: |  ||: |||: | :| ||:||||      || :      | | :      ||||
Db          56 GASV-CSPPSVGSVQELAQRAAVVIEGKVHPQRRQQGALDRKAAAAAGEAGAWGGDREPP 114

Qy          62 ASGRVA-------------------------------------LVKVLDKWPLRSGGLQRE 85
               |:|  |                                     ||||   | :::|||:::
Db         115 AAGPRALGPPAEEPLLAANGTVPSWPTAPVPSAGEPGEEAPYLVKVHQVWAVKAGGLKKD 174

Qy          86 QVISV----------GSCVPLERNQRYIFFLEP-----TEQPLVFKTAFAPLDTNGKNLK 130
                :::|           ||  |: : |||||:||     :  |  |: :| ||:| |:|||
Db         175 SLLTVRLGTWGHPAFPSCGRLKEDSRYIFFMEPDANSTSRAPAAFRASFPPLET-GRNLK 233

Qy         131 KEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRS-- 188
               ||| ::||  ||  |:||:||||    | |  |:|| ::      ::|||:| ||||
Db         234 KEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLRCETSSEYSSLRFKWFKNGNELNRKNK 293

Qy         189 -RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWS 247
                ::|:|:   |:  | |: ||  : |:|||:|:  : || |:    : :   : | :| :
Db         294 PQNIKIQKKPGK--SELRINKASLADSGEYMCKVISKLGNDSASANITIVESNATSTSTT 351

Qy         248 G--HARKCNETAKSYCVNGGVCYYIEGINQLS---CKCPVGYTGDRCQQFAMVNF 297
               |  |  || |  |::|||||  |: :: ::  |   ||||  :||||||  : | :|
Db         352 GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASF 406


RESULT 10
US-09-795-686-3
; Sequence 3, Application US/09795686
; Patent No. US20020094954A1
; GENERAL INFORMATION:
;  APPLICANT: Stefansson, Hreinn
;  APPLICANT:  Steinthorsdottir, Valgerdur
;  APPLICANT:  Gulcher, Jeffrey R.
;  TITLE OF INVENTION: HUMAN SCHIZOPHRENIA GENE
;  FILE REFERENCE: 2345.2005-001
;  CURRENT APPLICATION NUMBER: US/09/795,686
```

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;  CURRENT FILING DATE:  2001-02-28
;  PRIOR APPLICATION NUMBER: US 09/515,715
;  PRIOR FILING DATE: 2000-02-28
;  NUMBER OF SEQ ID NOS: 1531
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
;   LENGTH: 418
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-795-686-3

  Query Match             34.4%;  Score 542;  DB 9;  Length 418;
  Best Local Similarity   35.2%;  Pred. No. 1.7e-36;
  Matches  125;  Conservative   62;  Mismatches   92;  Indels   76;  Gaps   12;

Qy          15 GVSLACYSPSLKSVQDQAYKAPVVVEGKV------QGLV-----PAGGSSS--NSTREPP 61
               | |: |  ||: |||: | :| ||:||||      || :      | | :      ||||
Db          56 GASV-CSPPSVGSVQELAQRAAVVIEGKVHPQRRQQGALDRKAAAAAGEAGAWGGDREPP 114

Qy          62 ASGRVA-----------------------------------LVKVLDKWPLRSGGLQRE 85
               |:|  |                                   ||||   | :::|||:::
Db         115 AAGPRALGPPAEEPLLAANGTVPSWPTAPVPSAGEPGEEAPYLVKVHQVWAVKAGGLKKD 174

Qy          86 QVISV----------GSCVPLERNQRYIFFLEP-----TEQPLVFKTAFAPLDTNGKNLK 130
                :::|           ||  |: : |||||:||     :  |  |: :| ||:| |:|||
Db         175 SLLTVRLGTWGHPAFPSCGRLKEDSRYIFFMEPDANSTSRAPAAFRASFPPLET-GRNLK 233

Qy         131 KEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRS-- 188
               ||| ::||  ||  |:||:|||| | |  |:|| ::      ::|||:| ||||
Db         234 KEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLRCETSSEYSSLRFKWFKNGNELNRKNK 293

Qy         189 -RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWS 247
                ::|:|:   |:  | |: ||  : |:|||:|:  : || |:    : :   : | :| :
Db         294 PQNIKIQKKPGK--SELRINKASLADSGEYMCKVISKLGNDSASANITIVESNATSTSTT 351

Qy         248 G--HARKCNETAKSYCVNGGVCYYIEGINQLS---CKCPVGYTGDRCQQFAMVNF 297
               |  |  || |  |::|||| |: :: ::  |   ||||  :|||||| : | :|
Db         352 GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASF 406


RESULT 11
US-09-946-807-3
; Sequence 3, Application US/09946807
; Patent No. US20020165144A1
; GENERAL INFORMATION:
;  APPLICANT: Stefansson, Hreinn
;  APPLICANT:  Steinthorsdottir, Valgerdur
;  APPLICANT:  Gulcher, Jeffrey R.
;  TITLE OF INVENTION: HUMAN SCHIZOPHRENIA GENE
;  FILE REFERENCE: 2345.2004-001
;  CURRENT APPLICATION NUMBER: US/09/946,807
;  CURRENT FILING DATE:  2001-09-05
;  PRIOR APPLICATION NUMBER: US/09/795,668
;  PRIOR FILING DATE: 2001-02-28
;  PRIOR APPLICATION NUMBER: US 09/515,716
;  PRIOR FILING DATE: 2000-02-28
;  NUMBER OF SEQ ID NOS: 1531
```

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;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
;   LENGTH: 418
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-946-807-3

  Query Match             34.4%;  Score 542;  DB 10;  Length 418;
  Best Local Similarity   35.2%;  Pred. No. 1.7e-36;
  Matches  125;  Conservative   62;  Mismatches   92;  Indels   76;  Gaps   12;

Qy          15 GVSLACYSPSLKSVQDQAYKAPVVVEGKV------QGLV-----PAGGSSS--NSTREPP 61
               | |: |  ||: |||: | :| ||:||||      || :      | | :      ||||
Db          56 GASV-CSPPSVGSVQELAQRAAVVIEGKVHPQRRQQGALDRKAAAAAGEAGAWGGDREPP 114

Qy          62 ASGRVA-----------------------------------LVKVLDKWPLRSGGLQRE 85
               |:|  |                                   ||||   | :::|||:::
Db         115 AAGPRALGPPAEEPLLAANGTVPSWPTAPVPSAGEPGEEAPYLVKVHQVWAVKAGGLKKD 174

Qy          86 QVISV----------GSCVPLERNQRYIFFLEP-----TEQPLVFKTAFAPLDTNGKNLK 130
               :::|           ||  |: : |||||:||     :  |  |: :| ||:| |:|||
Db         175 SLLTVRLGTWGHPAFPSCGRLKEDSRYIFFMEPDANSTSRAPAAFRASFPPLET-GRNLK 233

Qy         131 KEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRS-- 188
               ||| ::|| ||  |:||:|||    | |  |:|| ::      ::|||:| ||||
Db         234 KEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLRCETSSEYSSLRFKWFKNGNELNRKNK 293

Qy         189 -RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWS 247
                ::|:|:   |:  | |: ||  : |:|||:|:  : || |:    : :   : | :| :
Db         294 PQNIKIQKKPGK--SELRINKASLADSGEYMCKVISKLGNDSASANITIVESNATSTSTT 351

Qy         248 G--HARKCNETAKSYCVNGGVCYYIEGINQLS---CKCPVGYTGDRCQQFAMVNF 297
               |  |  || |  |::|||||  |: :: ::  |   ||||  :||||||  : | :|
Db         352 GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASF 406


RESULT 12
US-10-096-241-33
; Sequence 33, Application US/10096241
; Publication No. US20020127594A1
;   GENERAL INFORMATION:
;        APPLICANT: Gearing, David P.
;                   Busfield, Samantha J.
;        TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
;                            AND USES THEREFOR
;        NUMBER OF SEQUENCES: 33
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Fish & Richardson P.C.
;             STREET: 225 Franklin Street
;             CITY: Boston
;             STATE: MA
;             COUNTRY: US
;             ZIP: 02110-2804
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Diskette
;             COMPUTER: IBM Compatible
;             OPERATING SYSTEM: DOS
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;             SOFTWARE: FastSEQ Version 2.0
;         CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/096,241
;             FILING DATE: 12-Mar-2002
;             CLASSIFICATION: <Unknown>
;         PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/699,591
;             FILING DATE: 19-AUG-1996
;         ATTORNEY/AGENT INFORMATION:
;             NAME: Fasse, J. Peter
;             REGISTRATION NUMBER: 32,983
;             REFERENCE/DOCKET NUMBER: 07334/022001
;         TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 617-542-5070
;             TELEFAX: 617-542-8906
;             TELEX: <Unknown>
;    INFORMATION FOR SEQ ID NO: 33:
;         SEQUENCE CHARACTERISTICS:
;             LENGTH: 139 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: not relevant
;             TOPOLOGY: linear
;         MOLECULE TYPE: protein
;         SEQUENCE DESCRIPTION: SEQ ID NO: 33:
US-10-096-241-33

  Query Match             32.0%;  Score 504;  DB 14;  Length 139;
  Best Local Similarity   93.9%;  Pred. No. 5.7e-34;
  Matches   92;  Conservative    3;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        192 RIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSSWSGHAR 251
              |||||||||||||||||:|||||||||||||||||||||:||||||||||||||||
Db          1 RIKYGNGRKNSRLQFNKVRVEDAGEYVCEAENILGKDTVRGRLHVNSVSTTLSSWSGHAR 60

Qy        252 KCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRC 289
              |||||||||||||||||||||||||||||| |: | ||
Db         61 KCNETAKSYCVNGGVCYYIEGINQLSCKCPNGFFGQRC 98


RESULT 13
US-09-795-668-4
; Sequence 4, Application US/09795668
; Patent No. US20020045577A1
; GENERAL INFORMATION:
;  APPLICANT: Stefansson, Hreinn
;  APPLICANT:  Steinthorsdottir, Valgerdur
;  APPLICANT:  Gulcher, Jeffrey R.
;  TITLE OF INVENTION: HUMAN SCHIZOPHRENIA GENE
;  FILE REFERENCE: 2345.2004-001
;  CURRENT APPLICATION NUMBER: US/09/795,668
;  CURRENT FILING DATE:  2001-02-28
;  PRIOR APPLICATION NUMBER: US 09/515,716
;  PRIOR FILING DATE: 2000-02-28
;  NUMBER OF SEQ ID NOS: 1531
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
;   LENGTH: 204
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-795-668-4

  Query Match 23.8%; Score 375; DB 9; Length 204;
  Best Local Similarity 40.6%; Pred. No. 4e-23;
  Matches 73; Conservative 38; Mismatches 59; Indels 10; Gaps 4;

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Qy        126 GKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKEL 185
              |:|||||| ::||  ||  |:||:||||    | |  |:|| ::      ::|||:| ||
Db          1 GRNLKKEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLRCETSSEYSSLRFKWFKNGNEL 60

Qy        186 NRS---RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTT 242
              ||    ::|:|:   |:  | |: ||  : |:|||:|:  : || |:    : :   : |
Db         61 NRKNKPQNIKIQKKPGK--SELRINKASLADSGEYMCKVISKLGNDSASANITIVESNAT 118

Qy        243 LSSWSG--HARKCNETAKSYCVNGGVCYYIEGINQLS---CKCPVGYTGDRCQQFAMVNF 297
               :| :|  |  || |  |::|||| |: :: ::  |   ||||  :||||| : | :|
Db        119 STSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASF 178
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RESULT 14
US-09-795-686-4
; Sequence 4, Application US/09795686
; Patent No. US20020094954A1
; GENERAL INFORMATION:
; APPLICANT: Stefansson, Hreinn
; APPLICANT: Steinthorsdottir, Valgerdur
; APPLICANT: Gulcher, Jeffrey R.
; TITLE OF INVENTION: HUMAN SCHIZOPHRENIA GENE
; FILE REFERENCE: 2345.2005-001
; CURRENT APPLICATION NUMBER: US/09/795,686
; CURRENT FILING DATE: 2001-02-28
; PRIOR APPLICATION NUMBER: US 09/515,715
; PRIOR FILING DATE: 2000-02-28
; NUMBER OF SEQ ID NOS: 1531
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 204
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-795-686-4

  Query Match 23.8%; Score 375; DB 9; Length 204;
  Best Local Similarity 40.6%; Pred. No. 4e-23;
  Matches 73; Conservative 38; Mismatches 59; Indels 10; Gaps 4;

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Qy        126 GKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKEL 185
              |:|||||| ::||  ||  |:||:||||    | |  |:|| ::      ::|||:| ||
Db          1 GRNLKKEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLRCETSSEYSSLRFKWFKNGNEL 60

Qy        186 NRS---RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTT 242
              ||    ::|:|:   |:  | |: ||  : |:|||:|:  : || |:    : :   : |
Db         61 NRKNKPQNIKIQKKPGK--SELRINKASLADSGEYMCKVISKLGNDSASANITIVESNAT 118

Qy        243 LSSWSG--HARKCNETAKSYCVNGGVCYYIEGINQLS---CKCPVGYTGDRCQQFAMVNF 297
               :| :|  |  || |  |::|||| |: :: ::  |   ||||  :||||| : | :|
```

```
Db        119 STSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASF 178
```

RESULT 15
US-09-946-807-4
; Sequence 4, Application US/09946807
; Patent No. US20020165144A1
; GENERAL INFORMATION:
; APPLICANT: Stefansson, Hreinn
; APPLICANT: Steinthorsdottir, Valgerdur
; APPLICANT: Gulcher, Jeffrey R.
; TITLE OF INVENTION: HUMAN SCHIZOPHRENIA GENE
; FILE REFERENCE: 2345.2004-001
; CURRENT APPLICATION NUMBER: US/09/946,807
; CURRENT FILING DATE: 2001-09-05
; PRIOR APPLICATION NUMBER: US/09/795,668
; PRIOR FILING DATE: 2001-02-28
; PRIOR APPLICATION NUMBER: US 09/515,716
; PRIOR FILING DATE: 2000-02-28
; NUMBER OF SEQ ID NOS: 1531
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 204
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-946-807-4

Query Match 23.8%; Score 375; DB 10; Length 204;
Best Local Similarity 40.6%; Pred. No. 4e-23;
Matches 73; Conservative 38; Mismatches 59; Indels 10; Gaps 4;

```
Qy        126 GKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKEL 185
              |:|||||| ::||  ||  |:||:||||    | |  |:|| ::      ::|||:| ||
Db          1 GRNLKKEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLRCETSSEYSSLRFKWFKNGNEL 60

Qy        186 NRS---RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRGRLYVNSVSTT 242
              ||    ::|:|:   |:  | |: ||  : |:|||:|:  : || |:    : :   : |
Db         61 NRKNKPQNIKIQKKPGK--SELRINKASLADSGEYMCKVISKLGNDSASANITIVESNAT 118

Qy        243 LSSWSG--HARKCNETAKSYCVNGGVCYYIEGINQLS---CKCPVGYTGDRCQQFAMVNF 297
              :| :|  |  || |  |::|||||| |: :: ::  |   ||||  :||||||: | :|
Db        119 STSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASF 178
```

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